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62-61
F. H. Ebeling

1868

1915



STECHER CO. ROCHESTER, N. Y.

SEEDS

**HARDWARE, MACHINERY, IMPLEMENTS,
WAGONS, GARDEN AND FARM SUPPLIES**

RETAIL STORE
217 WARREN ST.

SYRACUSE, N. Y.

WAREHOUSE
538-540 CANAL ST.

PRICE LIST

RAFFIA, REED AND SWEET GRASS.

REED.

No.	1	Reed.....	per lb.	\$1.35	per oz.	15c
2	"	"	1.20	"	15c
3	"	"	1.00	"	15c
4	"	"	.90	"	10c
5	"	"	.75	"	10c
6	"	"	.60	"	10c

RAFFIA.

Natural.....	per lb.	.30	per oz.	5c
Colored—in 8 shades	"	.75	"	10c
SWEET GRASS....	"	\$2.50	"	20c

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average per acre yield in the country, covering

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USEFUL TABLES.

Of Plants per Acre at the following distances apart.

ft. by 1	ft.	43,560	6	ft by 6	ft.	1,210
½	1½ ft.	19,360	8	"	8 ft.	680
"	1 ft.	21,780	9	"	9 ft.	537
"	2 ft.	10,898	10	"	10 ft.	435
½	2½ ft.	6,969	12	"	12 ft.	302
"	1 ft.	14,520	15	"	15 ft.	193
"	2 ft.	7,260	18	"	18 ft.	134
"	3 ft.	4,840	20	"	20 ft.	103
"	4 ft.	2,722	25	"	25 ft.	70
"	5 ft.	1,742	30	"	30 ft.	48

Number of Plants Produced from 1 oz. of Seed.

Plants	Plants
Asparagus about 500	Kale . . about 2,000
Broccoli . " 2,000	Leek . . " 1,000
Cabbage . " 3,000	Lettuce . " 3,000
Cauliflower " 4,000	Pepper . " 2,000
Celery . . " 4,000	Sage . . " 1,000
Egg Plant " 1,000	Tomato . " 3,000
Endive . . " 3,000	Thyme . . " 5,000

SEED SOWN PER ACRE.

Seed Sown per Acre. Wt. per bu

Timothy, ¼ to ½ bu . . 45 lbs

Lucerne, or Alfalfa, 30 lbs 60 lbs

Clover, Red, 10 to 15 lbs . 60 lbs

Clover, Alsike, 5 to 10 lbs 60 lbs

Clover, Crimson, 15 lbs . 60 lbs

Cow Peas, 60 lbs . . . 60 lbs

Red Top, 2 to 2½ bu . . 14 lbs

Blue Grass, 2 bu . . . 14 lbs

Orchard Grass, 2 bu . . 14 lbs

Yellow Sand Clover, 15 lbs 60 lbs

White Clover, 6 to 10 lbs . 60 lbs

Sweet Vernal, 1 to 1½ bu 11 lbs

Seed Sown per Acre. Wt. per bu

Millet, ½ to ¾ bu . . . 50 lbs

Hungarian, ½ to ¾ bu . . 48 lbs

Wheat, 2 bu 60 lbs

Buckwheat, ¾ to 1 bu 48 to 50 lbs

Rye, 1 to 2 bu 56 lbs

Oats, 2 to 3 bu 32 lbs

Oats, Winter, 1¾ bu . . 32 lbs

Barley, 2 bu 48 lbs

Flax Seed, 1 bu 56 lbs

Corn, ¼ bu 56 to 60 lbs

Potatoes, 6 bu 62 lbs

Sweet Corn, ¼ bu . about 45 lbs

Seed Sown per Acre. Wt. per bu

Dwarf Essex Rape, . . . 5 lbs

Peas, 2½ bu 60 lbs

Beans, 1 bu 62 lbs

Pumpkin Seed, 2 qt . . 27 lbs

Turnip, 1 lb

Spinach, 8 lbs 42 lbs

Beet, 4 to 6 lbs

Squash, 2½ lbs per acre .

Parsnips, 3 to 4 lbs . . .

Cabbage, ¼ lb

Cucumber, 1 lb

Carrot, 2½ to 3 lbs . . . 20 lbs

Onion, 5 to 6 lbs 56 lbs

NON-WARRANTY.—F. H. Ebeling gives no Warranty, express or implied, as to description, quality, productiveness, or any other matter of any seeds, bulbs or plants he sends out, and he will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms. they are at once to be returned.

A WORD OF APPRECIATION

This makes the 46th year in which I have served Central New York people in helping them to make an annual success of their harvests.

The fact that the children and grandchildren of my first customers are now my regular patrons, proves that the house of Ebeling has not only won but has held the complete confidence of its customers.

For 46 years our policy has been to import, contract for and handle only the highest grade seeds, bulbs, and supplies for the farm, garden, greenhouse, lawn, dairy or poultry yard.

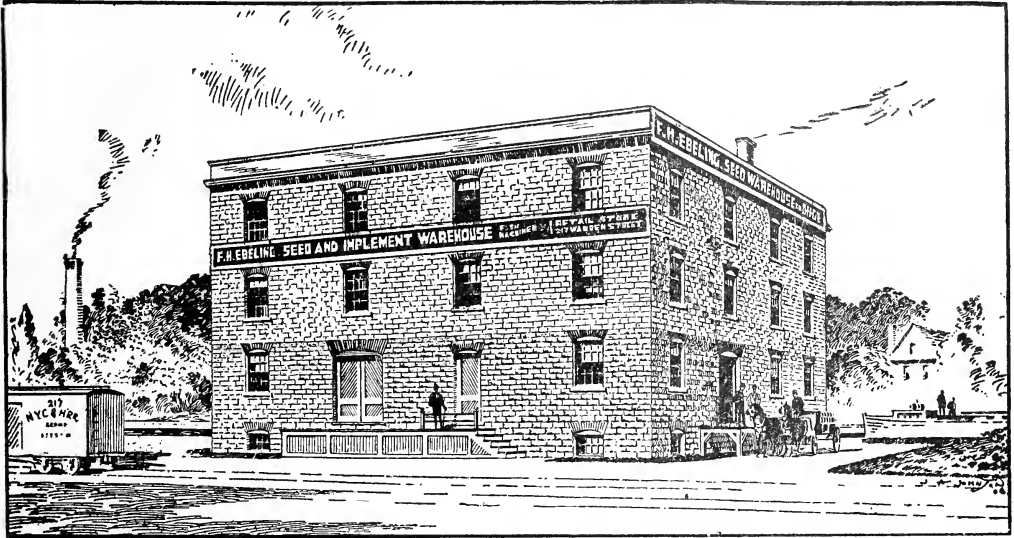
I wish to take advantage of this opportunity to thank you, the reader, for the kind words in our behalf that you have extended to your friends and neighbors. It is valued far more than the profits of the business to which it has contributed. As a result of your co-operation, the year just passed has proved the most successful of all.

Assuring you that my heartiest hope is that this, my latest Catalog and Seed Book, will in turn more than do its share to make your 1915 the happiest and most prosperous of all years, I remain

Yours very truly,

F. H. EBELING.

January 1, 1915.



F. H. EBELING'S SEED AND IMPLEMENT WAREHOUSE.
538 and 540 Canal St. RETAIL STORE, 217 Warren St.

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ALBERTA Cluster Oats

THE BIG HEAVY-YIELDING HARDY VARIETY FROM THE GREAT NORTHWEST

These oats have captivated the grain-growing farmer in every part of the country. Everywhere they have proved themselves a big success and have been looked upon as the wonder of the oat world. This new variety was originated in the Alberta country of the Canadian Northwest and are by far the handsomest, most profitable and hardy sort ever offered in Syracuse or the East.

A great many farmers have had trouble with their annual yield of oats. The most common reason is that they continue to sow old run-out run-down sorts year after year. The fact is there is no cereal crop grown that runs out and degenerates as quickly as oats. The remedy is our Alberta Cluster Oats.

KERNELS MUCH FATTER AND WEIGH 44 POUNDS TO BUSHEL

They yield from 75 to 100 bushels to the acre. Have big, strong, stiff straws that stand up well on any ground. Their spangled heads are 12 to 18 inches long and ripen early.

As these oats come from a colder climate they form the best possible seed oats for our New York State farmers. You know that the Alberta country is free from weeds and foul matter so these oats are perfectly clean. They compare with the majority of seed oats in the same way as a blooded Holstein compares with a common scrub animal.

We heartily recommend these oats to all of our farmers.

They are certain to produce extraordinary results and you can sell at a good price to your neighbors next season. We suggest that you order your seeds early—before the rush and before the stocks are broken.

In the spring of 1914 George A. Courbat, Mallory, N. Y., who runs a lumber and feed mill, also conducts a large farm, purchased thirty bushels of our wonderful ALBERTA CLUSTER OATS; and, though the season was not the best for Oats, as is well-known, he grew one thousand bushels from this seed and sold nearly all for seed purposes at \$1.50 per bushel, just as they came from the thrasher. This was possible because the Oat field was free from all foul weeds and did not require recleaning. This is so unusual that we make special mention of it. The man who did the threshing said that this was the finest crop of Oats he had ever seen in all of the twenty-five years of his threshing experience. You can readily figure out the value of this wonderful Oat crop to Mr. Courbat.

These facts can be verified by addressing Mr. George A. Courbat, of Mallory, N. Y., who gave us the above testimonial.

Mr. M. Danforth, R. F. D. No. 1, Clay, N. Y., sowed seven acres of our celebrated oats and threshed 400 heaping bushels, which are equal to about 500 bushels by weight. This is a splendid showing for the harvest season of 1913.

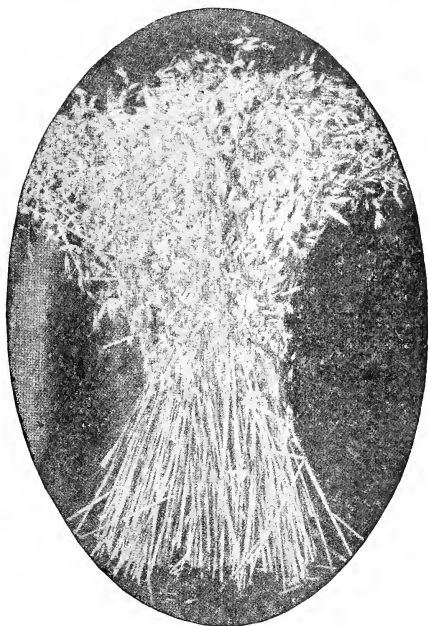
His neighbors sowed ordinary oats, and threshed less than one-third as much as Mr. Danforth. This shows the value of high-class Pedigree Seed Oats.

We could multiply these testimonials, but this is as good as if we had fifty more.

PRICE—\$2.00 per bushel. Special prices in large quantities.



Alberta Cluster Oats

CANADA CLUSTER OATS.

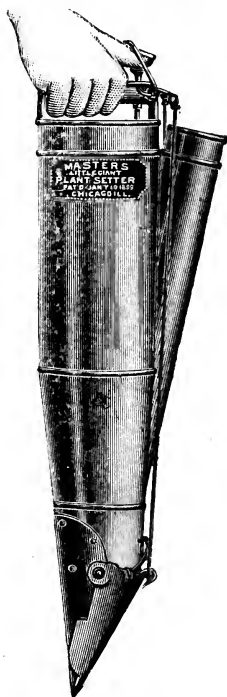
The straw is from 4 to 5 feet tall and a good many of the heads from 8 to 11 inches. They stand up extra well and the meats are plump. Weighs 40 lbs. to bu.

Several years ago we first imported this wonderful variety and it has proved itself the best all-around sort we have introduced in recent years. We place them at the head of all oats when it comes to the genuine money value.

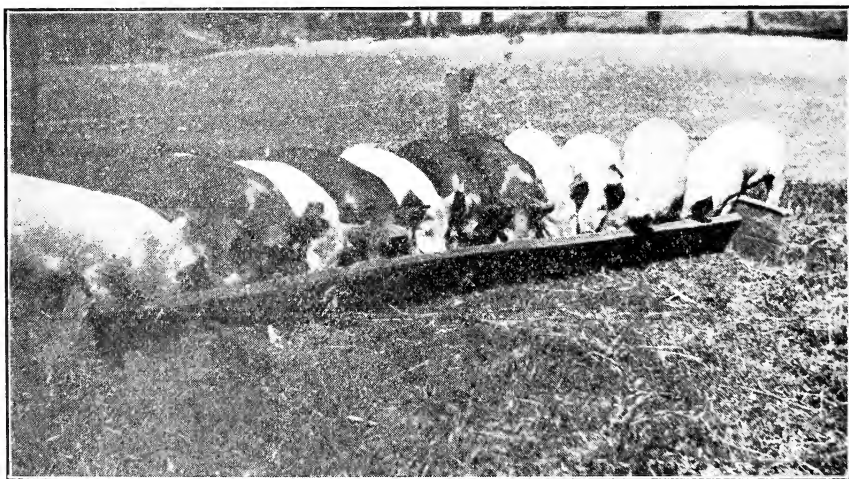
One of the features that enables this plant to resist drought better than any other variety is its extraordinary root development. The straw has the power to withstand lodging because it is very coarse and stiff. This last year wasn't a very favorable one for oats, yet our customers' crops of Canadian Cluster were nearly as good as usual. Price \$1.50 bushel.

MASTERS PLANT SETTER

We again offer the celebrated Masters Hand Plant Setter which we introduced some ten years ago, and which has shown itself to be one of the greatest labor saving devices introduced in years. It plants perfectly Cabbage, Tomato, Tobacco, Celery and Cauliflower Plants. It is a labor-saver, drought breaker, and a crop producer. Get yourself a planter and save backaches, time, plants and a guarantee against loss of plants, thus insuring a full crop.



Price, \$4.00



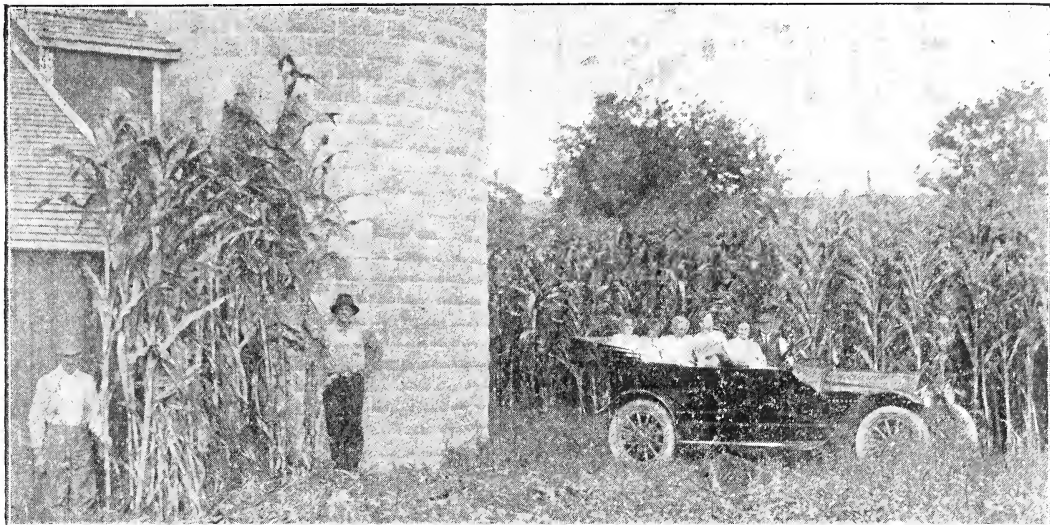
• Pigs Fed on Rape and Vetch

This litter of twelve pigs was raised by Lyman Crane, No. Stockholm, N. Y., on Vetch and Rape. This is a practical illustration and demonstration of the great value of Dwarf Essex Rape and Winter Vetch in raising and fattening hogs at a small expense.

You can see by the picture what a healthy, strong and vigorous dozen they appear to be. Our farmers are not living up to their opportunities in the use of this class of stock feed, and I would strongly urge upon all who are raising swine to make use of this means of getting the most money out of their hogs at the least possible expense and at the same time benefit the animals and making them healthy and ready for the market much sooner than any ordinary feeding methods.

Price on Vetch, \$9.00 per bushel; Dwarf Essex Rape, 10c lb.

EUREKA ENSILAGE CORN



The above picture shows a field of our GENUINE and CELEBRATED EUREKA ENSILAGE CORN; also the family of the grower, Mr. H. F. Daboll of Clyde, N. Y. This shows a wonderful growth of this celebrated variety which has produced such immense crops for our New York farmers. We are offering again our genuine Eureka Ensilage corn, which we have secured from our growers in Virginia, and is not to be compared with the ordinary Southern Horse-tooth variety which is often substituted.

This Wonderful Variety of Ensilage Corn was originated and grown under special supervision on the bottom lands of Virginia. It is especially famous for abundant leaves and extreme height. Some of you will remember having seen this variety at our State Fair exhibit three years ago. The corn measured 19 ft. in height.

This season we have been fortunate in securing another carload of this wonderful corn.

As it is grown beyond the frost line it insures a perfect seed stock, as our short season does not allow it to mature and our Northern soil produces an extremely heavy growth of stalks and leaves, which makes it especially valuable ensilage and nearly double in quantity.

Bear in mind that this is the genuine Eureka, not the common Southern horse-tooth variety—and remember that our stock will be exhausted early.

PRICE \$2.75 PER BUSHEL

WHAT SOME OF OUR CUSTOMERS SAY

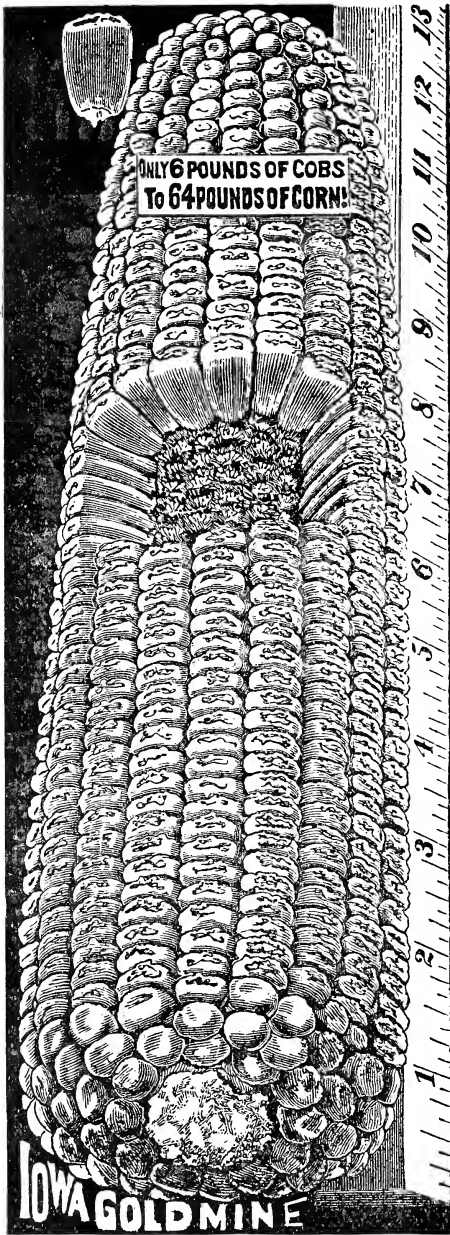
Produces a wonderful growth of stalks, the tallest, most leafy and best for ensilage I have ever grown.—Isaac H. Broadhurst, Marcellus, N. Y.

We purchased one peck of Eureka ensilae corn from you last year and it grew 24 tons. Some stalks were 18 ft. in height.—Seeber Bros., Hastings, N. Y.

Three acres averaged 14 ft. in height.—F. E. Streeter, Hamilton, N. Y.

Made a tremendous crop.—J. Grant Morse, Laurel Farm, Hamilton, N. Y.

Had two acres of Eureka corn and put in about 40 tons.—W. B. Sanborn, Hamilton, N. Y.



IOWA GOLD MINE ENSILAGE CORN.

The Deepest Grained, Purest Yellow Corn Ever Grown. Every Year This Corn Puts Thousands of Good Gold Dollars in the Pockets of Our Customers.

Every year you have read in our catalog the extraordinary things we have had to say about our Iowa Gold Mine Corn. Every year our confidence in it has increased, and our only wish is that we knew how to make a stronger plea for this, the king in the corn family.

We honestly believe it is the biggest market producer and money maker on the American continent.

This real wonderful variety of corn grows 14 feet high and it matures with your field varieties. Of all ensilage corn known to modern seedmen this has the largest kernel and smallest cob. You will find the grain value to be almost double of the Leaming or Pride of the North because of their immense cobs and small kernels. Iowa Gold Mine Ensilage Corn possesses every desirable feature of the Leaming and Pride of the North and in addition the great grain producing quality we have told you about.

We earnestly advise you, the reader, to sow this corn this year and we know that you will be as enthusiastic as we are about this world-winning corn. Price \$2.50 Bu. Shelled.

LUCIE'S FAVORITE DENT FIELD CORN

This variety combines the best in the Western Yellow Dent and Eastern (White) Flint of which it is a hybrid. It combines all the good points in the family stock in that its stalks are tall, slender with many wide leaves. The ear has a long small cob filled with large broad dented kernels flattened out to the size of your finger nail.

This corn was grown in Onondaga County and is thoroughly acclimated. You can plant it as late as May 25th and it will ripen with ordinary seed Flint sorts.

You will find Lucie's Favorite to be a strong growing bright yellow dented corn, which breaks off very easy in husking. It's the heaviest yielder you ever saw, the stalks often have two or three ears. It's extra good for fodder as the leaves are very broad and long. Like all hybrid of this class there are from eight to twelve rows to the ear. We have seen a bushel shelled that weighed 34½ pounds and equal to 69 pounds of shelled corn to 2 bushels of ears. Price \$2.50 bushel.

CORN OR STALKS?

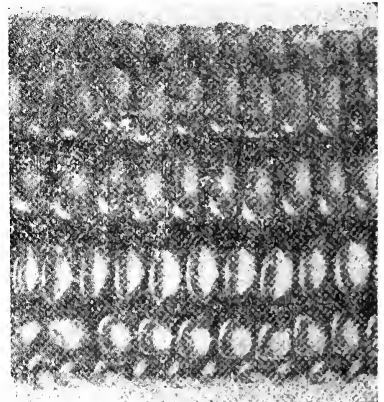
If you want corn of a very prolific, extra early maturing variety you should plant

EBELING'S BLOOD RED CORN

It's the earliest dent corn—as early as the Pride of the North or the Flint varieties. It is not handsome in color but it is one of the most nutritious varieties grown. The stock like it and one bushel will go as far as 1½ bushel of either white or yellow dent varieties. Price, \$2.50 per bushel.

EARLY YELLOW FLINT

This is the largest, handsomest Early Golden Yellow Eight Row Flint Corn we have ever known. Ripens ahead of the frost. Very prolific, kernels large, ears of good size, and of a most beautiful golden yellow. We will offer a limited quantity at \$2.50 per bushel.





The above illustration was made from an actual photograph of a field of IDEAL SUGAR MANGEL BEETS grown on the Willowdale Farm, owned by Charles B. Day, of Skaneateles, N. Y.

IDEAL SUGAR MANGEL

Our illustration shown above faithfully indicates the shape and style of this Beet. It is a perfect Chunk or Boot-leg type of a beet, which stands for early harvesting, especially in hard soils, as it grows fully two-thirds above the ground. This new and original Mangel Seed is imported from Germany, and can be secured only from one grower who has brought it to its present perfection. In trial ground and laboratory test of over thirty varieties, the IDEAL SUGAR MANGEL has proven superior in each of the following points:

- It contains the greatest amount of dry substance.
- It contains the greatest amount of sugar, which means feeding value.
- This Mangel grows high above ground.
- It's easiest of all to harvest these Mangels.
- Under favorable conditions they sometimes weigh thirty pounds.
- Size, quality and yield are three important factors that no farmer can afford to overlook.
- Price, \$1.00 per pound.

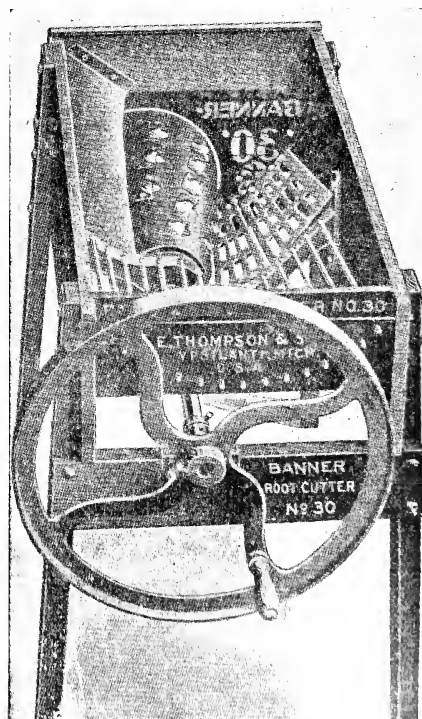
NEW BANNER "30" ROOT CUTTER

Just a glance will show you the large capacity of hopper. It's 39 in. long, 18 in. wide and 18 in. deep at the lower or cutting end. The long drum has 30 knives attached. Note the graduated slant of the inside hopper. The dirt escapes without mixing with the feed cut because of the open bottom with iron rods and open cutting grate. With this machine mangels, sugar beets, turnips, carrots and other roots that are fed to stock are left in the best possible shape for feeding.

TWO BUSHELS PER MINUTE
CAN'T CRUSH THE FEED

At 60 revolutions the knives hit and cut the roots 1,800 times. The cut feed is left in long half round slices. These features have made the Banner Root Cutter the most popular machine for the last 20 years.

No. 30, \$15.00; No. 20, \$8.00



Mr. F. H. Ebeling,
Syracuse, N. Y.

Dear Sir:

The Early Medium Green Soy Beans have proven to be all that I expected and even more. I planted a large field in drills and cultivated them the same as corn. These produced a fine crop, which were harvested and stacked up the same as Beans. These are still out in the field, where they have been left to cure and dry for seed purposes. I shall use the straw for feeding, which we consider as valuable as hay.

A large quantity of the Early Medium Green Soy Beans was planted with my Ensilage Corn and harvested with it and put in the silo. I consider Soy Beans a valuable addition to silage as it produces a higher grade than can be produced in any other way.

I would recommend these Beans to all dairymen for their money value in increasing the flow of milk and keeping stock in fine, healthy condition. Yours very truly,

CHAS. M. CROUSE.

EARLY MEDIUM GREEN SOY BEANS

Below is a reproduction of a photograph of a field of

EARLY MEDIUM GREEN SOY BEANS,

grown on "The David Harum Farm," Homer, N. Y., owned by Mr. Charles M. Crouse of this city.



SHELTER VALLEY FARMS.

R. M. Stone & Son, Proprietors.

Mr. F. H. Ebeling:

Dear Sir—I wish to say that the Soy Beans bought of you to plant with our Eureka Ensilage Corn for Silage purposes, were entirely satisfactory. They not only grew large, but furnished a lot of splendid forage and more than fulfilled our best expectations by the manner in which the seed matured. We feel that the EARLY MEDIUM GREEN SOY BEANS with the EUREKA and STATE CORN mixed and grown together has proven a very fine combination of feed for silage purposes. Soy Beans are also readily eaten by cattle in the green state.

USEFULNESS OF THE EARLY MEDIUM GREEN SOY BEANS.—Soy Beans have a higher protein content than oil meal. Hay from them has a higher protein content than Alfalfa. The green fodder contains a higher protein content than either alsike or medium red clover. Add to this the fact that it is easily possible to secure two or three, or occasionally four to five tons of dry hay per acre; that from twenty to thirty bushels of seed per acre are frequently reported; that the plant is a legume and adds fertility to the soil fully as rapidly as the clovers or other legumes; that it will grow on soil too poor or acid for the easy success of Alfalfa; and you have a splendid combination, certainly qualities that are hard to excel with any of our cultivated crops.

No plant has a more useful range of possibilities than the Soy Bean. When one stops to think of the great feeding value of the grain, of the entire plant's being very valuable for forage, of its being a legume and a heavy gatherer of nitrogen to the soil, not difficult to grow or exacting as to the kind of soil it requires, we must realize that it occupies a position unique among all our crops. Not only is the grain as nourishing as oil meal, but it is as greedily eaten as corn and as easily digested as any grain. Moreover, there seems to be a tonic effect about the entire plant, and stock fed either the grain or the forage become full of energy as with no other grain.

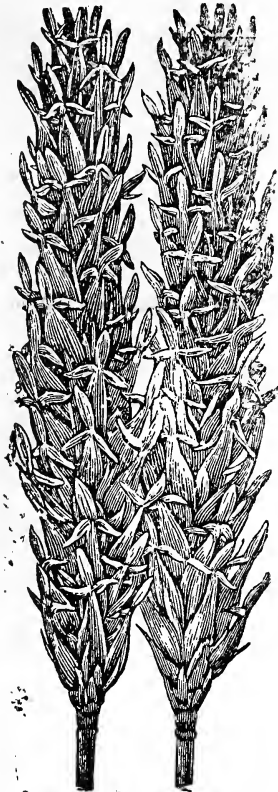
As a nitrogen gatherer we are sure the Soy Bean has no superior, and where a crop to plow under is desired, nothing is better to add humus to the soil.

Its possibilities for silage has been thoroughly tested in connection with corn, the beans greatly assisting to make a balanced ration. When all these facts are considered, and also that it will grow on either fertile or impoverished soils, either limestone or freestone, its value is an established fact.

Time of Planting and Cultivation.—Soy Beans are not a lazy man's crop. They require as much skill and patience as the potato crop. Plow your land early in the spring, if possible, selecting soil that is not too foul with weeds. Prepare and cultivate the same as for corn, giving frequent harrowings to kill the weeds as they appear; therefore, wait until corn planting time before planting the beans. Plant in with the corn or in alternating rows. Sow $\frac{3}{4}$ bu. to the acre. We advise planting in drills about 36 inches apart, 2 or 3 inches in the drill. Price, \$5.00 per bushel.

Book on Soy Beans by W. F. Ingalls, a practical farmer, of Hamilton, N. Y., who has grown the Early Medium Green Soy Beans for many years, and is an authority on same. Price, 60 cents.

AUSTRIAN Two-rowed Barley



Beardless Barley

This grand type of Two-rowed Barley was imported from Austria, where it has been brought to its present perfection after many years of careful study and selection. A measured bushel will weigh fifty-six pounds. The straw is stiff, very strong, grows three feet high, and will stand up against the most severe weather conditions without lodging. Each kernel stools three to six stalks, showing its great prolific strength and value. $1\frac{1}{2}$ bushels of Austria Barley is sufficient for one acre, owing to its heavy stooling qualities. Last season—1913—which was a bad year for all grain crops, it grew 55 measured bushels to the acre. This would make nearly 65 bushels according to weight. It is extremely hardy, coming as it does from a colder climate, which is a very important item in all seeds, as it is a well-known fact that the seed grown in a colder climate is hardier, stronger and will produce better results.

Special prices for quantities made upon application.
Price per bushel, \$2.00.

STATE GROWN TWO-ROW BARLEY

This Barley is greatly esteemed by our New York State farmers, who are unanimous that it is the best adapted to our soils and seasons and very popular for brewing. It is always in good demand and at excellent prices. We offer Two-Row Barley for seed purposes which has been carefully re-cleaned and which will produce good clean barley and command a higher price in the market. Price per bushel, \$1.50.

BEARDLESS BARLEY

It is a fair yielder, strong growth of straw without the objectionable beards, which gives it a superior feeding value. These features make it the best and most profitable barley known. It was introduced by us several years ago, and has proved to be very popular. Price per bushel, \$2.00.

MR. F. H. EBELING:

Dear Sir—Your seeds I purchased from you have given the best of satisfaction and I do wish you could see the fine seeding I have for another year's crop of hay. It is very gratifying to me to have same and to have secured a "No. 1" article of you every time.

With best wishes for your abundant success in business and the best of health and kindest regards to you, I am

R. F. D. 1, Verona, N. Y., Aug. 29, 1914.

Very truly yours,

H. L. BROWN.

Dear Sir—Call around again, as your seeds were fine. There is no better, and will want four bushels of Lucy's Favorite Corn. I think I have the best corn in the town of Lisbon.

Yours for more corn,

Lisbon, N. Y.

WILLIAM BROWN.

Your seeds have given such good results shall certainly purchase of you again next year.

Respectfully yours,

New Berlin, N. Y., R. F. D. 2.

MRS. L. BEATTY.

I have a splendid stand of corn from the seed I got of you. The Rutabagas which I sowed together are looking fine. My Eureka Ensilage Corn looks like a young forest.

GEORGE S. KIMPEL.

Dear Sir—Your seed has given me every satisfaction indeed. Hope to have more dealings some day.

Cortland, N. Y.

Yours very truly,

EDWARD LEAHEY.

Dear Sir—My seeds which I ordered of you are doing fine and I am well pleased with them. I am satisfied that you handle good quality seed.

Cazenovia, N. Y., R. F. D.

C. L. STEINBACH.

Dear Sir—The grass seed we bought of you produced splendid results and we have a seeding that looks like a green carpet on both of our farms.

Canastota, N. Y., R. F. D.

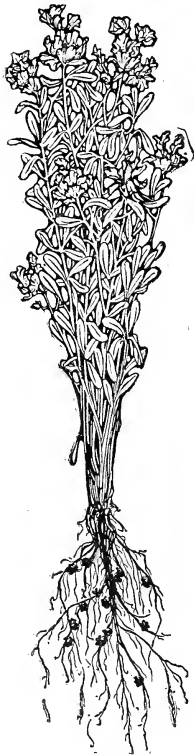
EDDY BROTHERS.

Success with Alfalfa and Clover

Cow Peas, Soy Beans, Vetch

Field Peas and Beans, Garden Peas and Beans, and all other legumes.

A good "catch" and a big stand, of greatest feeding value—richer soil for succeeding crops—these results follow the use of



Alfalfa—
Inoculated with
"Nitragin"



Alfalfa—
Not
Inoculated



PURE CULTURE

THE SIMPLEST SAFEST AND SUREST SYSTEM
OF SOIL INOCULATION FOR ALL LEGUMES



"NITRAGIN" is the trade-mark name for the special germ, or bacteria, that acts on the legume root, draws nitrogen from the air and converts it into plant food. As a result there is a uniform "catch"; the crop grows quickly; it is strong, hardy and healthy—deep-rooted—rich in food-value. Meanwhile your soil is growing *richer* instead of *poorer*—your land *more valuable*.

Failure with legumes is usually due to lack of bacteria. In "NITRAGIN" Pure Culture we send you *billions* of these necessary nitrogen-gathering germs, packed in proper food to keep them alive, active and healthy.

It's *easy* to treat your seed with "NITRAGIN" Pure Culture. A boy can do it in ten minutes.

If your past experience with legume crops has been unsatisfactory it was probably because your soil lacked these vital, strength-giving germs. Some soils have only a partial supply; in other soils the germ is missing or so sickly as to be worthless. Such soils need "NITRAGIN" Pure Culture to supply an abundance of *pure*, healthy, strong, virile bacteria. This means a profitable crop and new life to the soil.

If you have been successful in growing legumes you can have *greater* success by using "NITRAGIN" Pure Culture.

A green manure crop inoculated with "NITRAGIN" Pure Culture provides a *richer* humus in *far greater* volume than does a non-inoculated legume.

Get the Original

Look for the Armour Oval Label

This is the *original* Pure Culture—discovered by Nobbe and Hiltner, famous German bacteriologists. It has been perfected by twenty years of scientific testing, in the laboratory and on the farm. The germs come to you packed in a *granular* food—in a ventilated can—the *safe* and *satisfactory* way.

Why use imitations when you can be *sure* of *perfect* inoculation by using "NITRAGIN" Pure Culture. The *Armour Fertilizer Works* guarantee "NITRAGIN" Pure Culture to retain *health and vitality* for *6 months* from date of preparation, stamped on can.

The Pure Culture system of inoculating legumes is endorsed by U. S. Government authorities, by state experiment stations, practical farmers and other agricultural experts. These men have accomplished wonders with inoculated legumes. You can do the same on *your* farm by using "NITRAGIN" Pure Culture.

There is a *special strain* for *each legume*. In ordering be *sure* to name the crop desired.

Prices per can: Garden size, \$1; acre size, \$2;
5-acre size, \$9. F. O. B. Syracuse
Express Extra. Parcel Post, 10c per acre extra.

Order "NITRAGIN" Pure Culture with your seed—from

F. H. EBELING, SYRACUSE, N. Y.



Cow Peas
Not
Inoculated

Cow Peas
Inoculated
with "Nitragin"

HOW TO GROW ALFALFA

BY INOCULATING SAME WITH WHITE SWEET CLOVER (*Melilotus Alba*)
Use Five Pounds Sweet Clover for Each Acre
PREPARATION OF THE SOIL



Alfalfa, or Lucerne

more of the plants and the roots were 18 inches long. Of course, I do not know how this will come out in the spring, but I have no fear of its freezing out, for I think it is too well rooted for that. I think a good many farmers fail to get a start of Alfalfa, because—first they do not sow enough seed to the acre, second—they do not put their ground in good shape and thoroughly packed, third—they sow the seed too shallow.

I expect to sow 25 bushels more next spring and I intend to follow the same methods again. Don't forget the Ridging Steel Roller. It is the grandest tool on the farm, and used with a Clark's Cutaway Harrow makes the finest combination a man can get.

This page on alfalfa is so good that we again repeat it for 1915. Your friend,
November 19, 1913. J. G. HUNTINGTON,

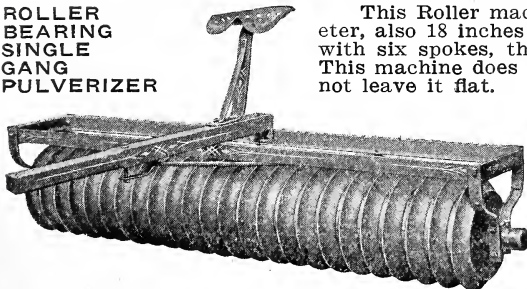
Cazenovia, N. Y., R. F. D.

ALFALFA

We have just received a car load of the finest American-grown Alfalfa Seed that we have ever handled. Upon submitting a liberal sample to the Seed Testing Division of the Department of Agriculture at Washington, D. C., for test, the report of this test submitted by them showed a purity of 99.73 and free from dodder and trefoil. This is one of the purest and cleanest cars of Alfalfa Seed we have ever seen, and we trust our farmers will avail themselves of this opportunity and place their orders while it lasts. Special prices on large orders.

RIDGING ROLLER

ROLLER
BEARING
SINGLE
GANG
PULVERIZER



This Roller machine is made with wheels 15 inches in diameter, also 18 inches in diameter, each wheel being 4 inches wide with six spokes, three on each face, made in one solid casting. This machine does excellent work, compressing the soil but does not leave it flat.

The angle steel frames form a weight box. The seat balances weight of pole, relieving the horses of neck weight. The axle is 1 3/4 inches round, with each end turned perfectly smooth, to fit into roller bearings. Cap is placed over end of axle, making bearing practically dirt proof. Hard grease coups are supplied on all bearings.

This machine does excellent work in preparing the seed-bed and is highly recommended by Government Experimental Station. It also holds the heavy dews and rains and prevent it from being blown over the fields in winter grain or new seeded Alfalfa fields; thus forming a blanket of snow protection for all grain and seeded fields. Also, breaks up the lumps, packing and pulverizing the ground—keeping the soil moist.

tions. "The little ditches" formed by this roller catch and hold the heavy dews and rains and prevent it from being blown over the fields in winter grain or new seeded Alfalfa fields; thus forming a blanket of snow protection for all grain and seeded fields. Also, breaks up the lumps, packing and pulverizing the ground—keeping the soil moist.

7-foot Roller, 15-inch.....\$28.00
8-foot Roller, 15-inch..... 32.00

7-foot Roller, 18-inch.....\$34.00
8-foot Roller, 18-inch..... 36.00

HAIRY OR WINTER VETCH. VICIA VILLOSA.

Makes One of the Largest Yielding and Most Nutritious Hay Crops Grown. Rivals Cow Peas in its Nitrogen Gathering Properties. A Splendid Soil Improver.

Hairy or Sand Vetch, as it is sometimes called, we consider is one of the best annuals grown for stock feed, soil improving products, and is a cover-crop in our orchards.

Our customers tell us that Vetch is better than clover for hay and it is superior to peas in easy curing. It gives a great abundance of nutritious food which the stock like very much. It gives fine results sown at last working of corn.

When used as a soiling crop an acre of vetches and oats, rye or winter wheat, will yield from six to eight tons of green fodder which is eaten greedily by all kinds of stock.

On Any Well-Drained Soil

Our Vetch will grow on almost any drained soil and is especially adaptable for sandy and thin soils, although, of course, it will produce heavier yields on a better class of soil.

When you prepare a soil for Vetch you should see that the pulverization is fine. Aim to have the ground firm and moist. Cover the seeds about the same depth as cereal grains.

Your Care of the Crop

Vetch is usually sown from about the middle of August to the first of October; or in the Spring, usually the latter part of April to the middle of May. You may sow it broadcast or with a grain drill, at the rate of 1 to 1½ bushels of seed per acre if sowed alone.

Pure cultures for inoculating seed may be obtained free of charge from the United States Department of Agriculture.

A bushel of rye, wheat or oats per acre is usually sown with vetch so as to furnish a support to keep the vines off the ground.

The vines are very difficult to cut when sown alone, but if you sow grain as a nurse crop you can cut the combination very early with the mowing machine or pea harvester.

Harvest and Use

Vetch should be cut for hay just when the pods are half formed. You may cut it for green feed at the time it is in full bloom. When it is properly cured vetch makes good hay, as its feed value is similar to clover.

It is adapted for pasturage purposes. It will produce forage very late in the Fall and early in the Spring. Sometimes it is used for ensilage in alternating layers with green corn. Like all other leguminous plants, vetch adds fertility to the soil and may be used in rotation with cereal and corn to good advantage. Spring Vetch, \$8.00 bu.; Winter Vetch, \$9.00 bu.



Hairy or Winter Vetch

QUESTION

Summary

ANSWER

1. How to Sow Vetch..... Mix with one bu. grain 25 lbs. vetch to the acre.
2. When to Sow..... When season and soil permits.
3. What Variety?..... Sow Winter Vetch in the Spring and Fall.
4. What Soil?..... Any soil—especially high, dry and sandy thin soils are especially adapted to it.
5. How much to the Acre?..... Twenty-five pounds with grain.
6. How Valuable as Compared with Hay?..... 25 per cent greater than Clover Hay.
7. How Valuable as Compared with Alfalfa?..... Three per cent greater.
8. How Valuable Compared with Ensilage?..... Four times greater.
9. Which is Best, Winter or Spring Vetch?..... Winter Vetch for Spring and Fall sowing.

EXTRA RE-CLEANED GRASS AND CLOVER SEED

Nothing is more important to the farmer than that the grass seed he sows should be pure and clean. The seed should also be plump, heavy and well ripened, so as to insure a good stand. First-class, thoroughly re-cleaned seed, while considerably more costly in the first place, is really much cheaper in the end than the light, chaffy grades generally sold at much lower prices—even should the latter be free from weed seeds. Heavy, plump seed, germinating better, will produce a much greater number of strong plants.

We handle but one grade—that is the very **BEST** which can be obtained from any source. At pound prices, where so stated, we send grass seed by mail, postpaid. In larger quantities the prices are for seed to be sent by express or freight (sacks included), at purchaser's expense. Where large quantities are desired or Special Mixtures wanted for different soils, we should be pleased to advise as to the proper varieties.

Prices on grass seed fluctuate. Write for prices on large quantities.

GRASSES



Bromus Inermis

BROMUS INERMIS. A hardy perennial, dark green soft grass, especially adapted to the dry and thinner soils. It forms a splendid grass for our Central New York farms, making fine pasture and good hay. It is one of the few really desirable grasses that can be depended upon for all around purposes. It is finer than Orchard Grass, sweet and nutritious, and sprouts out into fresh growth very naturally. Well adapted to high grounds, hills and sandy soil. It makes quick and strong growth, forming splendid pasturage and hay,

weighs 14 pounds to the bushel. Sow three bushels to the acre. Price, \$3.00 per bushel.

For dry and exposed lawns **Bromus Inermis** is especially adapted. It is a hardy perennial, dark green, grows on hills, dry and barren spots. It forms a splendid pasture and will grow where no other grass will thrive. Sow double the quantity of Blue Grass.

ORCHARD GRASS. (*Dactylis glomerata*). This is one of the most desirable pasture grasses for stock, and also for producing large crops of hay. It succeeds well in quite shady places, hence the name of Orchard Grass. Choicest re-cleaned seed, 14 lbs. to the legal bushel—but our seed is heavier; 3 bushels to the acre. Per lb., 40 cts., postpaid; per bushel of 14 lbs., about \$3.00.

TIMOTHY. (*Phleum pratense*). Of the easiest cultivation and with us is usually sown in connection with winter grain in the fall, to which a seeding of clover is added early in the spring. 45 lbs. to the bushel; from 12 to 16 to the acre. Per lb., 35 cts., postpaid; price per bushel about \$4.00.

KENTUCKY BLUE GRASS. As is well known, this is the grass for which the State of Kentucky is famous and frequently in some sections of the country it is used in making lawns, although it is preeminently a pasture grass. When Kentucky Blue Grass is used for lawn purposes, the seed is generally sown at the rate of two and one-half to three and one-half bushels to the acre, and if White Dutch Clover is desired, seed should be added at the rate of one-half pound to one bushel of grass seed. Kentucky Blue Grass thrives best in well-drained or limestone soils. Legal weight, fourteen pounds to the bushel, and for pasturage it is customary to sow two and one-half bushels to the acre. Our re-cleaned seed weighs 20 pounds per bushel, and hence less than two bushels are required per acre. Per lb., 50 cents, postpaid; per bushel of about 20 lbs., \$4.00.

ENGLISH RYE GRASS. (*Lolium perenne*). This makes a quick growth very early in spring, and is adapted for cool, moist locations, recommended for fall seeding on Bermuda-grass lawns in the South, giving them a bright green appearance all winter. 24 lbs. to the bushel; 3 bushels to the acre. Per lb., 15c, postpaid; per bushel of 24 lbs., \$2.75.

ITALIAN RYE. (*Lolium Italicum*). This is distinct from the preceding, being of much larger and stronger growth, with large broad glossy-green blades. It succeeds best in moist, fertile soils. About 20 lbs. to the bushel; 3 bushels to the acre. Per lb., 15 cts., by mail, postpaid; per bushel, \$2.50.

RED TOP OR HERD GRASS. (*Agrostis vulgaris*). It is a most valuable addition to sow with timothy and clover to form a close sward for pasturage. About 32 lbs. to the bushel; 1 bushel to the acre; for lawns, 3 bushels to the acre. Per lb., 40c, postpaid; per bushel of 32 lbs., about \$10.00.

CRESTED DOGSTAIL. (*Cynosurus cristatus*). A valuable addition for lawn grasses which require close cutting and an ability to resist tramping, as in golf links, etc. 21 lbs. to the legal bushel; 1 to 2 bushels to the acre. Per lb., 40c, postpaid; per bushel of 23 lbs., \$7.00.

CREEPING BENT. (*Agrostis stolonifera*). Especially adapted to moist lands and those which are occasionally overflowed. Its peculiar habit of branching underneath to the surface enables it to resist to the greatest extent tramping and pasturage. About 20 lbs. to the bushel; 2 bushels to the acre. Per lb., 45 cts., by mail, postpaid; per bushel of 20 lbs., \$7.75.

HARD FESCUE. (*Festuca durinscula*). An excellent pasturage or lawn grass, succeeding well in dry or shady locations. About 12 lbs. to the bushel; 2½ bushels to the acre. Per lb., 40 cts., postpaid; per bushel of 12 lbs., \$3.50.

SHEEP'S FESCUE. (*Festuca ovina*). Slender blades growing in close, compact clumps and from six to ten inches in height. About 12 lbs. to the bushel; 2½ bushels to the acre. Per lb., 40 cts., postpaid; per bushel of 12 lbs., \$3.50.

MEADOW FESCUE. (*Festuca pratensis*). A fine pasture grass. About 22 lbs. to the bushel; 2 bushels to the acre. Per lb., 60 cts., postpaid; per bushel of 22 lbs., about \$9.50.

TALL MEADOW OAT. (*Avena elatior*). A very valuable pasture grass. It is especially adapted for rather dry, light soils. About 10 lbs. to the bushel; 4 to 5 bushels to the acre. Per lb., 40 cts., postpaid; per bushel of 10 lbs., \$2.75.

WOOD MEADOW. (*Poa nemoralis*). An excellent pasture or lawn grass, desirable for planting under trees on the lawn. 14 lbs. to the bushel; 2 bushels to the acre. Per lb., 60 cts., by mail, postpaid. By express: \$6.00 per bushel.

ROUGH-STALKED MEADOW GRASS. (*Poa trivialis*). A valuable grass for moist soils or meadows, making excellent pasture or very nutritious hay. About 14 lbs. to the bushel; 3½ lbs. to the acre. Per lb., 55 cts., postpaid. By express: 45 cts. per lb.; per bushel of 14 lbs., \$7.50.

MEADOW FOXTAIL. (*Alopecurus pratensis*). Closely resembles Timothy in growth, but has a soft, feathery head. It is a valuable pasture grass by reason of its rapid growth. About 7 lbs. to the bushel; 3 bushels to the acre. Per lb., 55 cts., postpaid; per bushel of 7 lbs., \$2.85.

HUNGARIAN MILLET. (*Panicum Germanicum*). Seed can be sown early in July to produce a good crop of hay. To make the best hay it should be cut before the seeds become hard. 48 lbs. to the bushel; 1 bushel to the acre. Per bushel, about \$2.00.

GOLDEN OR GERMAN MILLET. This is the favorite variety for planting in good land to produce a large crop of hay or forage during the summer months; of very strong growth. 50 lbs. to the bushel; 1 bushel to the acre. Tennessee grown. Per bushel, about \$2.25.

DWARF ESSEX RAPE. A forage plant of highest value. It can be sown in April for an early crop, and for fall crop in July, August and September, and still later further south; it is sown broadcast 10 lbs. to the acre, but it is better drilled, in which case 5 lbs. to the acre will suffice. In a few weeks from the time of sowing, sheep, hogs or cattle can be turned upon it; all reports agree that they gain weight faster on this than any other fodder, and as it can be sown after other crops are off, the gain in fodder is secured at a nominal cost. Stockmen, dairymen and farmers have proved its value. Per lb. 15c; 10 lbs., \$1.20; bushel of 50 lbs., \$5.50; 100 lbs., \$10.00.

SORGHUM, OR EARLY AMBER SUGAR CANE. This is the sorghum of the Northern States; makes the finest quality of syrup. The earliest and most productive variety. Height, 10 to 12 feet. For ensilage or fodder it possesses good qualities; stock of all kinds relish it. Sow 5 lbs. in drills, or 1½ bushels broadcast to acre. Per lb., 10c; Bu. (56 lbs.), \$3.00.

SPRING VETCHES, OR TARES (*Vicia sativa*). Highly valuable for soiling or for green manuring. Sometimes grown with oats, for

mowing and feeding to stock. Sow 25 lbs. with one bushel grain per acre. Price per bushel, \$8.00.

WINTER VETCHES, OR TARES (*Vicia villosa*). Also called Sand Vetch, or Hairy Vetch. Recommended for fall sowing with rye, which serves as a support. It is perfectly hardy in all parts of the country, remaining green all winter and maturing fully four weeks earlier than Scarlet Clover; it can, therefore, be harvested or plowed under, and the ground used for the usual spring crop. Sow 25 lbs. with one bushel grain per acre. Price per bushel, \$9.00.

CLOVERS

ALFALFA, OR LUCERNE. (*Medicago sativa*). It strongly resembles clover in habit of growth and feeding value, but withstands drought much better. It is a perennial plant on well-drained soils, so that when once established, it will continue to produce large crops for twenty years when properly cared for, and on some of the rich western prairies yields four to five large cuttings in a single season. It must be cut every time it comes into bloom, and not allowed to produce seed if permanence is desired. The plant is quite hardy, but will not succeed on low wet soils. Sow from 20 to 35 lbs. per acre. Per lb., 40 cts., postpaid. By express or freight: 30 cts. per lb.; 10 lbs. at 28 cts. per lb.

ALSIKE OR HYBRID CLOVER. (*Trifolium hybridum*). The plant is perennial and very hardy, thriving equally well on wet or dry soils. The stems are more slender and much taller than those of the Red Medium Clover, and thus much better adapted for growing with Timothy to produce a high grade of mixed hay. Sow at rate of 10 to 20 lbs. to the acre. Per lb., 30 cts., postpaid. By express or freight: per lb., 30 cts.; 10 lbs. or more at 28 cts. per lb.

RED MEDIUM OR MAMMOTH. This is the common Red Clover so largely grown. We shall be pleased to quote prices at any time.

WHITE DUTCH CLOVER. (*Trifolium repens*). This thrives in almost every soil and climate, succeeding equally well on heavy, moist land and thin, dry hillsides. It is of low-creeping growth and for green, velvety lawns. Per lb., 45 cts., postpaid. By express, 40 cts. per lb.

SWEET CLOVER BOKHARA (*Melilotus Alba*). This slightly resembles Alfalfa in growth, but is much taller, with leafier and stiffer stems. It frequently grows five to six feet in height and branches freely, with slender spikes of small, fragrant, white flowers, which afford an excellent food for bees. Used also for inoculating Alfalfa soils.

CRIMSON OR ITALIAN CLOVER. (*Trifolium incarnatum*). An annual variety providing large crops of green forage, or if cut while in bloom will make excellent hay. It should not be allowed to grow too old, or the seed-heads are liable to cause hair-balls to form in the animals' stomachs, to their great injury. It is for use as a green manure and cover crops that this plant is most highly esteemed. It improves poor lands and restores to fertility those worn by excessive culture. Seed should be sown early in August. Sow 15 lbs. to the acre.

INOCULATION of these Clover Seeds means a stronger catch and better yield—see page 10.

FOR DESTROYING DODDER IN ALFALFA FIELD

Use a spray consisting of four parts of water, one part crude carbolic acid.

Mix thoroughly in hot water.

Spray this on the infected spots with an ordinary Paris green sprayer.

If necessary spray the second time.

This will kill the dodder and save about 75 per cent. of the growing Alfalfa.

I am indebted to J. C. Osborn, Port Byron, N. Y., for this valuable discovery. F. H. E.

THE RUSSET POTATO



The Russet is a late potato of marvelous, robust habit of growth, the rich dark green vines cover the ground even when planted three feet apart each way, and in a dry season. Vines free from blight and not bothered with bugs. No potato known can match it in this respect. Yields enormously, producing six, eight, ten, and even twelve large-sized, round, shapely, white tubers, equal to the Rural, Carmen or Raleigh, but a much larger producer. This potato is completely covered with a beautiful russet skin, and baked or boiled equal or superior to the best potato you ever ate. A trial of the **RUSSET POTATO** would convince you of the facts as stated above. Price per bushel, \$2.00. Special price for large lots.

Mr. W. L. Hoag is shown in above picture digging his Russet Potatoes. Read what he says: "I grew 393 bushels of the late Russet to the acre last season. A most remarkable yield and quite startling to the average farmer. This is a variety comparatively new and little known in this part of the State. A round, shallow-eyed potato, russet skin, flesh white as snow, a very fine cooker. Averages somewhat larger than the usual late varieties. Many specimens from 15 to 20 ounces were selected at random from a pile with an occasional one much larger. As a rule they are very uniform in size. The seed was introduced from Michigan several years ago. Ground for this great crop was prepared in the usual manner, planted 3 feet apart and the hills 15 inches apart. 600 lbs. of Fertilizer was used to the acre. The potatoes were sprayed three times with Bordeaux Mixture combined with Arsenate of Lead."



Copenhagen Market.

COPENHAGEN MARKET

The wonderful extra Early Cabbage. This superb new variety was introduced several years ago and created a great stir among the Market Gardening Fraternity. It is without question at the head of the early sorts and without rival as being the finest large round-headed Early Cabbage in cultivation. The type, thoroughly fixed, heads maturing all at the same time; hence causing less labor in harvesting, and permits the ground to be used promptly after the first cutting for other crops. Heads average about eight pounds, are very solid, small core and of very fine quality.

"We grew the **COPENHAGEN EARLY MARKET CABBAGE** during the season of 1913 with most remarkable results. Began cutting cabbage July 1st, 1913, weighing 15 lbs. and 2 oz. Mr. Etheridge of the firm says that the Copenhagen Early Market is by far the earliest, largest, most productive and profitable of all the early varieties he has ever planted, and considers it the coming variety for early market gardeners' use."—Etheridge & Clark, Market Gardeners, 414 E. Colvin St., Syracuse, N. Y. This Cabbage was originated and perfected in Denmark, the finest cabbage growing section in the world.

ASPARAGUS

Culture—Sow early in spring in rows one foot apart; when one year old the roots may be taken up and transplanted in permanent beds, which should be made by taking out the soil to a depth of about 16 inches, fill in with six inches of well rotted stable manure, then six inches of soil somewhat firmed, and place the roots on the same about 10 inches apart with the roots well spread out and cover so that the crown will be about four inches below the surface. Keep the surface well raked to keep down the weeds until the shoots appear.

Palmetto is earlier, a better yielder, and is more even and regular in its growth than Conover's. Oz. 10c; ¼ lb. 25c; lb. 75c.

Columbian Mammoth White It furnishes white shoots which stay white as long as fit for use without earthing up or any other artificial blanching. Fine for canning. Oz. 10c; ¼ lb. 25c; lb. 75c.

Roots of above varieties, \$1.00 a hundred.

BEANS—Dwarf Wax Varieties, Garten Bohne

Culture—Beans should not be planted until the ground is warm, as cold and wet weather will cause the seed to rot. For garden culture plant four or five seeds in hills one foot apart, and the rows 18 inches apart. For field culture make the rows three or three and one-half feet apart, and cover with two inches mellow soil. Do not hoe or cultivate while the plants are wet with dew or rain, as getting the leaves bespattered with earth causes rust, which injures the crop.

Pencil Pod Wax This comparatively new wax podded bean is particularly handsome, also medium early, hardy and very prolific. Leaves roughened. Pods long, five and one-half to six inches, straight, round, fleshy, and of a bright yellow color; tender, absolutely stringless and of excellent quality, and are produced through a long season. One of the best for home use and near markets. Seed long, round, medium sized; color solid black. Pt. 20c; Qt. 35c; Bu. \$8.00.

Davis Wax A very hardy and productive variety, desirable where a wax-podded, white seeded, mid-season sort is wanted. Vines very vigorous. Pods invariably long, six and one-half to seven inches, light yellow; seed kidney-shaped. Pt. 20c; Qt. 35c; Bu. \$8.00.

Wardwell's Kidney Wax This variety maturing a little later than the Golden Wax, yields a large crop of long, nearly straight, broad, creamy white, handsome pods. These are of large size, about six inches long, and are of good quality; kidney-shaped, white with dark markings about the eye. Pt. 20c; Qt. 35c; Bu. \$8.00.

Keeney's Rustless Golden Wax Vines strong and vigorous, with short runners. Pods produced in abundance; about five inches long, stringless, light yellow, wax-like and handsome. Seed similar to a light colored Golden Wax. Pt. 20c; Qt. 35c; Bu. \$8.00.

Currie's Rust-Proof Wax Pods straight, rather flat, five inches in length, and of a light golden yellow; seed black. Pt. 25c; Qt. 35c; Bu. \$8.00.

German Wax, Black Seeded This variety takes the place of the old black wax or butter bean and is much better in every respect. Vines medium sized, with small foliage, very vigorous, hardy and productive, maturing about midseason. Pods medium length, four and one-fourth to four and one-half inches, borne well up from the ground, curved, cylindrical, fleshy and of a clear, light golden yellow color, and remain a long time in condition for use as snaps. Seed small, oblong, jet black. Pt. 25c; Qt. 35c; Bu. \$8.00.

Round Pod Kidney Wax This midseason variety is exceedingly handsome and very desirable, especially for snaps for the home garden. The vines are dwarf, spreading and very productive. The leaves are roughened. The pods are long and round, five and one-half to six inches, slightly curved, light yellow, wax-like, stringless and of the best quality. They are uniformly perfect, an ill shaped one being rarely seen. Seed long, cylindrical, medium sized, nearly white, with a little dark marking about the eye. Pt. 20c; Qt. 35c; Bu. \$8.00.

Hodson Wax The vines of this variety are exceedingly vigorous, hardy and productive. The pods are handsome, clear creamy white, very long, six to seven inches, straight or slightly curved, flat but fleshy and of good quality, stringless and of the best quality. They are uniformly perfect, an ill shaped one being rarely seen. Seed long, cylindrical, medium sized, nearly white, with a little dark marking about the eye. Pt. 20c; Qt. 35c; Bu. \$8.00.

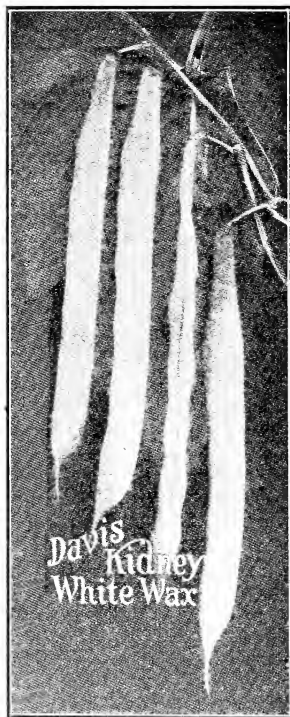
Davis Kidney White Wax

quality, stringless if picked when quite young; matures its crop late. Seed long, cylindrical, uniform in shape; color dull purplish red splashed with pale buff. Pt. 25c; Qt. 35c; Bu. \$7.00.

Grenell Rust-Proof Wax Vines a little more upright and harder than the Golden Wax. The handsome deep yellow pods are about five inches long, broader and flatter than Golden Wax but slightly inferior in quality. Seed similar to our Golden Wax but darker. Very popular with some gardeners. Pt. 20c; Qt. 35c; Bu. \$8.00.

BEANS—Pole

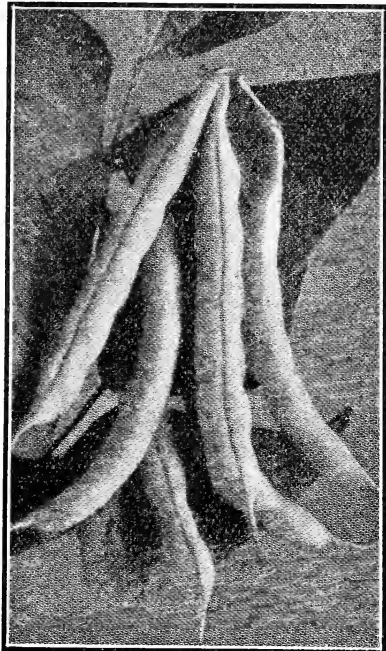
Kentucky Wonder This remarkably vigorous growing, green podded pole bean has very long pods somewhat broad, very fleshy and quite stringless as snaps. The mature pods are often eight to nine inches in length. Seed medium sized, oval, flattened, very irregular, dark brown. The seed even from the most matured crops is usually somewhat shriveled in appearance. Its earliness and hardness commend it as a pole bean well adapted even for northern latitudes. Its very large green pods are certainly handsome in appearance and are unexcelled in quality by any green podded bean of its class. Pt. 25c; Qt. 40c; Bu. \$8.50.



BEANS—Dwarf Green Podded Varieties

Early Mohawk

This sort is so much hardier than the others that it can be planted earlier and often will furnish beans fit for use before any other kind. Vines large, stout, with large, coarse, dark green leaves. Pods medium dark green, long, six to six and one-half inches, straight, coarse, flat, with long tapering points. Seed long, large, kidney-shaped, variegated with drab, purple and brown. Pt. 20c; Qt. 35c; Bu. \$8.50.



Burpee's Stringless Green Pod

Burpee's Stringless Green Pod

A very desirable green podded snap sort for the home garden and largely grown for the market. The vine is vigorous, spreading and productive. The pods are medium green, five to six inches long, larger than those of the Red Valentine but are quite as fleshy, of equally high quality and remain crisp and tender longer. They mature a little later. Pt. 25c; Qt. 40c; Bu. \$9.00.

Extra Early Round Pod Red Valentine

For snaps there is nothing superior to this variety among the dwarf green podded sorts both for the home and market garden and many prefer it to the wax varieties. Vines medium to large, erect, with dark green leaves. Pods medium length, about four and one-half inches, curved, cylindrical, with crease in back, very fleshy, crisp and tender. Pt. 20c; Qt. 35c; Bu. \$8.00.

Refugee, or 1000 to 1

Of compact growth and very prolific. The pods are light green, very solid and tender. Pt. 20c; Qt. 45c; Bu. \$10.00.

Dwarf Horticultural

Vines very productive, compact, upright, with large leaves. Pods five to five and one-half inches come fit for use as green shelled beans early and in this condition the beans are very large, easily shelled and are about equal to the Lima in quality. One of the best sorts for green shell beans for home and market. Pt. 25c; Qt. 40c; Bu. \$8.50.

Round Yellow Six Weeks,

While this does not differ from Early Yellow Improved Round Pod Kidney Six Weeks in size or general appearance of vine, pods are shorter, about four and one-half inches, much thicker, fleshier and mature earlier. Seed medium sized, round, light yellow with slightly darker marking about the eye. Pt. 20c; Qt. 35c; Bu. \$9.00.

BEANS—Dwarf or Bush Lima

Culture—Select land that is especially warm, rich, and well supplied with vegetable fibre or humus. Plant as soon as the soil has become warm in the spring. Make the rows 2 feet apart and give to each plant 6 inches space in the row. A top dressing of poultry manure, ashes, or some good fertilizer or compost around the plants will be of much benefit in hastening maturity and increasing the yield.

Dreer's Bush Lima

A dwarf variety of the Dreer's Improved Lima. The beans grow close together in the pods, producing 3 to 4 and sometimes 5 in a pod, and are thick, sweet and succulent. Pt. 25c; Qt. 40c; Bu. \$8.00.

Burpee's Bush Lima

True bush form of large white Lima, bush 15 to 20 inches high, 24 to 30 inches diameter, supported by its own thick stems. For productiveness and quality of beans it is not surpassed. Pt. 25c; Qt. 40c; Bu. \$10.00.

Fordhook Bush Lima

An improved dwarf Lima of the Kumerle type. The plant is vigorous and erect growing, bearing well above the ground. The pods, which are produced in large clusters, are medium green, about four and three-fourths inches long, and each contain three to five large beans of exceptionally fine quality. It is much more productive than Kumerle and matures earlier. Seed large, irregularly oval in shape, very thick, white with greenish tinge. We consider this a decided acquisition to the dwarf limas, possibly the best of the class. Pkt. 10c; Pt. 40c; Qt. 70c; 4 Qts. \$2.50.

BEANS—Pole Lima

Ideal Pole Lima

One of the largest and most valuable Lima beans yet introduced. Vines unusually vigorous, very productive, bearing large clusters of broad pods each six to seven inches long, and containing four to six large beans of most excellent quality. While the variety matures a little later than Seibert's Early Lima, the pods are much larger and no Lima grown is more attractive. Pt. 25c; Qt. 45c; Bu. \$8.50.

King of the Garden Lima

Vines very vigorous and productive. Pods five to six inches long, filled with four or five immense white beans of the finest quality. On account of its large pods it is a favorite with market gardeners. It will come into bearing sooner and will make larger pods if not more than two vines are left to grow on a pole. Pt. 25c; Qt. 45c; Bu. \$8.50.

Seibert's Early Lima

In earliness, ease of shelling, size, beauty and quality of the green beans, this variety is far in advance of all other early Limas for either the garden or market. The vine is vigorous, very productive and continues so from the very first to the last of the season; so that although the pods rarely contain more than four beans the total yield is enormous. Pods about five inches long. The green shelled beans are very large, very tender and of finest quality. Pt. 25c; Qt. 40c; Bu. \$8.50.

Jersey Extra Early Lima

Large, early and productive. Pint 25c; Quart 40c; Bushel \$8.50.

BEETS, Ruben

The best results are obtained on a deep, rich, sandy loam. If wanted very early, sow such sorts as Crosby's Egyptian or Detroit Dark Red in hotbeds and transplant, cutting off the outer leaves. For general crop sow in freshly prepared soil as soon as the ground will permit, in rows eighteen inches apart covering about an inch deep and pressing the soil firmly over the seed. For winter use the turnip varieties may be sown in June so as to mature late in the season.

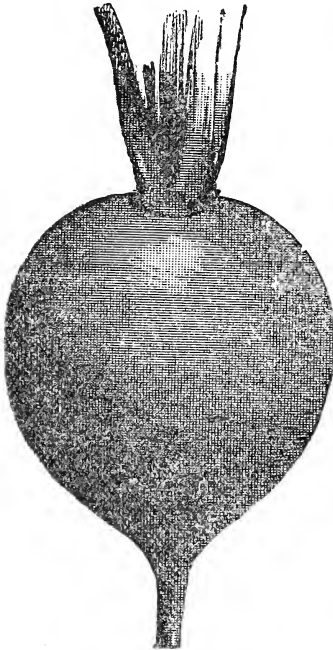
Extra Early Egyptian Blood Turnip The best variety for forcing and excellent for first early crop out of doors, being very early with small tops. Root very dark red, moderately thick, a little rounded on top, distinctly flat on the bottom, and about two inches in diameter when mature. Flesh dark purplish red, zoned lighter shade. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Crosby's Egyptian The name of this variety is misleading, as it resembles the Egyptian only in its extreme earliness. Tops small. The roots are flattened globe shaped and very smooth. Exterior color of root bright red. The flesh of our strain is bright vermillion-red, very sweet, tender and of excellent quality. It becomes fit for use sooner than any other variety, but it is not as well suited as the Egyptian for forcing in hotbeds or for transplanting. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Detroit Dark Red We believe this is the best beet for the market and home garden, and on account of its uniformly deep rich color the most desirable for canning. Tops small, upright in growth. Very smooth and of dark blood red color. Flesh is deep vermillion-red, zoned with a lighter shade of the same color. Careful comparisons with all the prominent varieties on the market in this country and in Europe prove that the Detroit Dark Red Beet is the most uniform in shape and size and the most attractive in color. It is unsurpassed in quality. Oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.50.



Extra Early Egyptian Blood Turnip



Detroit Dark Red

Early Eclipse An early beet especially desirable for the home garden. Tops small. Root bright deep red, smooth, round. Flesh bright red, zoned with pinkish white; very sweet, crisp and tender. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Edmand's Early Blood Turnip Tops short and rather spreading; ribs and leaf stalks dark red. Root nearly round; exterior color dark red, interior color purplish red with little zoning; crisp, tender, sweet and an excellent keeper. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Early Blood Turnip An extra selected stock of Blood Turnip, having larger, coarser tops and root than Detroit Dark Red and requiring a considerably longer time to mature. Root nearly round or slightly flattened. Flesh deep red, zoned with lighter shade, sweet, crisp and tender. Oz. 15c; $\frac{1}{4}$ lb. 40c; lb. \$1.25.

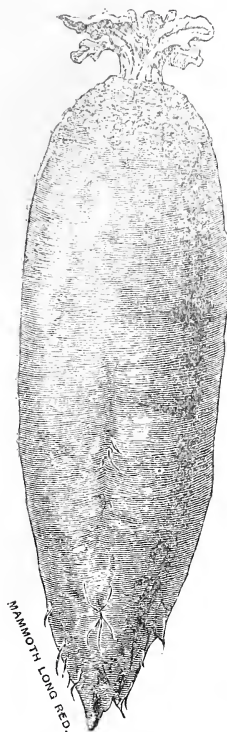
Bastian's Early Blood Turnip An early, bright red, turnip shaped beet of very good quality. Root thick, medium sized tap. Flesh light purplish red; crisp and tender. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Dewing's Blood Turnip Tops medium sized; leaf stem and veins dark red; leaf green. Root dark purplish red, turnip shaped with medium sized tap. Flesh carmine with purple tinge. A medium early sort, tender, sweet and a good keeper. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Half-Long Blood A fine variety for either spring or winter use. The roots are smooth, flesh bright red and quality excellent. For winter use the seed should be sown early in July. Oz. 10c; $\frac{1}{4}$ lb. 30c; lb. \$1.00.

Swiss Chard, or Sea Kale Beet A variety of beet grown exclusively for its large, juicy, tender, light colored leaves and leaf stalks, which are much superior to those of other beets for use as greens. Later in the season the broad, flat, wax-like leaf stems are cooked or pickled. This variety is worthy of a place in every garden. Known also as Silver or Spinach Beet. Oz. 10c; $\frac{1}{4}$ lb. 25c; lb. 80c.

MANGEL BEETS, Mangel Ruben



Long Red Mangel

Mangel Wurzels For stock feeding. We should learn a lesson from our brother farmers in Canada and grow root crops much more extensively for stock feeding, which produce the greatest results for the labor and money invested.

Golden Tankard A smooth, yellow fleshed Mangel. The roots are of large diameter, tapering quickly at the bottom, which is quite broad, with only a small tap-root. It grows largely above the soil and is easily harvested. It yields enormous bulk on good land and can be grown closely in rows. Oz. 10c; ¼ lb. 20c; lb. 45c.

Golden Giant, or Yellow Leviathan Very fine large roots, growing one-half above the surface, which renders the harvesting easy. Skin a rich golden yellow, flesh pure white and sweet in flavor. It is a magnificent root easily harvested, producing enormous crops, and is a fine keeper. Oz. 10c; ¼ lb. 20c; lb. 45c.

Mammoth Long Red This is a heavy cropper and a large yielder. The roots grow from one-half to two-thirds above the surface, and are frequently two or more feet in length by six inches usual diameter. Dark, richly colored foliage, skin dark red, flesh white with veined rings of rose pink. Oz. 10c; ¼ lb. 20c; lb. 45c.

Yellow Ovoid The roots are of a true globe shape, from six to eight inches in diameter. Skin rich orange yellow, flesh white with lemon yellow rings. Sweet and solid. Oz. 10c; ¼ lb. 25c; lb. 45c.

Giant Eckendorf The best globe shaped Mangel known, being one of the most popular mangels among the German farmers, similar to the Ideal in shape, but not as large. Contains a high percentage of dry matter, grows well above ground, is easily harvested, skin light yellow, white fleshed. Oz. 10c; ¼ lb. 25c; lb. 75c.

Lane's Imperial This beet will yield almost as much in bulk as the best Mangels, and contains a large percentage of sugar. Roots smooth, broad at the shoulder, gradually tapering to the base. Flesh snow-white. Oz. 10c; ¼ lb. 20c; lb. 45c.

Ideal Sugar Mangel Beet The illustration faithfully shows the shape of this wonderful Mangel. It is a perfect chunk of a beet, being as large at the bottom as at the top. Stands two-thirds above ground. Is easily harvested even on hard soils. This new and original Mangel has been tested alongside thirty other Mangels and by strict laboratory tests on trial grounds and field demonstrations, has proven to be IDEAL and superior in quality.

It contains the greatest amount of dry matter.
It contains the greatest amount of sugar of any Mangel.

It grows high above ground.
It is very easy to harvest.

The IDEAL MANGEL has under favorable conditions weighed as high as thirty pounds.

Skin light yellow, flesh light yellow.

We have imported the IDEAL MANGEL from the originator in Germany for many years and this particular type can only be secured from this grower in Germany. Oz. 10c; ¼ lb. 30c; lb. \$1.00.

NOTE THE FOLLOWING TESTIMONIAL

"Syracuse, N. Y., Jan. 18, 1913.

F. H. Ebeling:

Dear Sir—I have grown Mangel Beets for years on my Homer Farm, but in recent years THE IDEAL MANGEL only, which I consider the most satisfactory, because of its large percentage of sugar, the ease of harvesting and the feeding results obtained. Last season I grew about four acres; yield 115½ tons of harvested Mangels. This year I intend to increase my acreage.

Yours very truly,

CHARLES M. CROUSE."

BROCCOLI

The heads resemble somewhat a coarse cauliflower and the culture is the same in all essentials as for that vegetable. Broccoli is well adapted only to those sections where the season is long, cool and rather moist. One of the most valuable features is that it withstands greater extremes of temperature than cauliflower.

Early Large White French

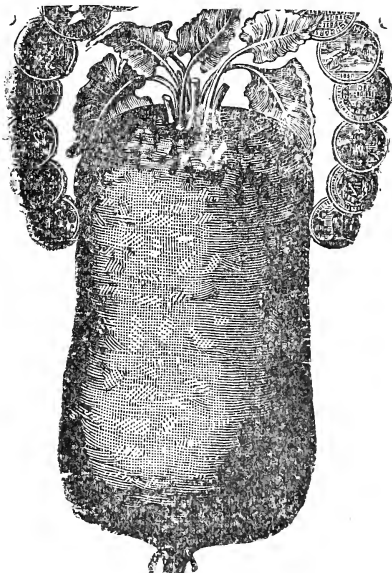
This is probably the most useful variety. Plants very hardy, vigorous and easily grown. Heads white, compact, hard and of good quality. Oz. 40c; lb. \$4.00.

BRUSSELS SPROUTS

This vegetable is used in the fall and early winter and by some considered more tender and delicious than any cabbage. The plant resembles the cabbage, the edible part being the numerous very small heads or sprouts an inch or two in diameter formed on the stalk at each leaf joint. Culture is the same in all essentials as for cabbage, except the leaves should be broken down in the fall to give the little heads more room to grow.

Improved Half Dwarf

Probably the most useful variety, plants growing one and one-half to three feet high, very hardy and giving compact, round sprouts of large size and good quality. Oz. 15c; lb. \$1.50.



Ideal Sugar Mangel Beet

CABBAGE, Kopf-Kohl

It is difficult to give definite cultural directions for cabbage, since it is possible to have good cabbage at all seasons of the year in some part of the country, and seed can be planted almost any time of the year. There are three good seasons for sowing the seed, however—in September for late Winter and early Spring cabbages, in March for Summer and Fall cabbages, and in June and July for Winter cabbages. The seed sprouts quickly, and is likely to come up very thick in the seed bed. It should be thinned early, or the plants become spindling, and then do not head well. Transplanted to the field, they should be put twelve inches apart, in rows eighteen inches apart. To prevent the heads splitting open in the field before they are ready to be harvested, the plants should be loosened a little at the root. Cabbages require considerable moisture, but too much water causes them to rot very readily.

Early Jersey Wakefield

Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

The best early cabbage in cultivation. Forms fine solid heads of good size, pointed heads with few outer leaves.



Copenhagen Market This new Danish cabbage is the earliest Ball-shaped variety known. Heads very solid, of wonderful quality, with small cores and weighing from 10 to 15 pounds according to soil and climatic conditions. Oz. 40c, $\frac{1}{4}$ lb. \$1.50, lb. \$5.00.

(See additional particulars on page 15.)

Early Spring One of the earliest and best of the early sorts, round, compact, medium size, small core and very hardy. Oz. 30c, $\frac{1}{4}$ lb. 90c, lb. \$3.00.

Early Winingstadt Pointed head. An old and reliable favorite. So well known that a description is unnecessary. Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

All-Head Early Our ALL-HEAD Early is of special value, having fine outer leaves, head very large, very solid, flat but very deep and uniform in size and shape. Fine for Kraut. Planted late makes a fine winter cabbage. Oz. 30c, $\frac{1}{4}$ lb. \$1.25, lb. \$3.00.

Flat Dutch A fine, very large, late winter variety. Very popular on account of size, quality and yield. Oz. 15c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

Late Drumhead One of the old-fashioned big-growing sorts. So well known that a description is unnecessary. Oz. 25c, $\frac{1}{4}$ lb. 65c, lb. \$2.50.

Early Copenhagen Market, from Photograph
Early Brunswick Early for a large flat; $\frac{1}{4}$ lb. 65c, lb. \$2.00.

Danish Ball-Head The best cabbage for shipping and keeping qualities. Heads perfectly round, very hard, solid and deep and of fine white color, making them different in appearance from any other sort. Quality superior to all the cabbages, and the most profitable shipping variety known. Can supply this in short or long stem. Oz. 25c, $\frac{1}{4}$ lb. 85c, lb. \$3.00.

Henderson's Succession The introducers say of this cabbage: "We consider it one of our most valuable contributions to horticulture. It would be classed as a second early variety, coming in a few days later than Early Summer, but it is superior to that variety. It is of nearly double the size, and is absolutely true to its type under all conditions. It is so finely bred that in a field of twenty acres every head appears alike." Oz. 25c, $\frac{1}{4}$ lb. 85c, lb. \$3.00.

The Hollander This splendid cabbage is so near like the Danish Ball that it would be difficult to tell them apart. Splendid for its keeping and shipping qualities, thus enabling the grower to supply the late spring shipping market. Oz. 25c, $\frac{1}{4}$ lb. 85c, lb. \$3.00.

The Volga A valuable acquisition to the cabbage family. The heads are as round as a ball, flesh firm and tender. It matures two weeks earlier than any other of our late growing sorts, and if set out early will mature in July and August. Especially fine for Kraut. Oz. 25c, $\frac{1}{4}$ lb. \$1.00, $\frac{1}{4}$ lb. \$3.50.

Mammoth Rock Red While late in maturing this has the largest heading of all the deep red varieties. Oz. 40c, $\frac{1}{4}$ lb. \$1.50, lb. \$5.00.

Red Drumhead or Large Red Dutch Heads of large size, slightly rounded. Fine quality. Oz. 40c, $\frac{1}{4}$ lb. \$1.50, lb. \$5.00.

Globe Savoy The earliest and sweetest of Savoy or curled cabbages. The head is round, solid. Leaves small, thick, fleshy and of fine deep green color. Excellent quality. Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

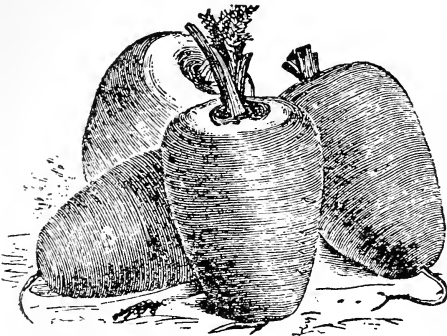
American Victoria Savoy The best of the late Savoy for house use or for the market. The plant is robust with short stem. Is very much curled or wrinkled. A sure header of large size and the best of the Green Globe Drumhead Savoy. Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.



Danish Ball Head, from Photograph

CARROTS, Gélbe Ruben

Carrots to grow to perfection require a deeply cultivated, rich and well pulverized soil. Sow early in the spring as soon as the soil is fit to work, in drills 15 to 18 inches apart, covering one inch deep, and press the soil firmly over the seed. If desired to cultivate with horse, make rows three feet apart.



GUERANDE OR OX HEART CARROT

Early French Forcing The earliest variety in cultivation and the best suited for forcing. Tops small, finely divided. The reddish-orange colored roots are nearly round. When fully matured they are about 2 inches in diameter, but should be used before they are full grown and while young and tender. Oz. 15c, lb. \$1.50.

Half Long Nantes Tops of medium size; roots cylindrical and smooth, bright orange; flesh orange, becoming yellow in center, but with no distinct core. Of the finest quality and one of the most symmetrical and handsome of the medium sized sorts; excellent for the market or home garden. Oz. 15c; lb. \$1.25.

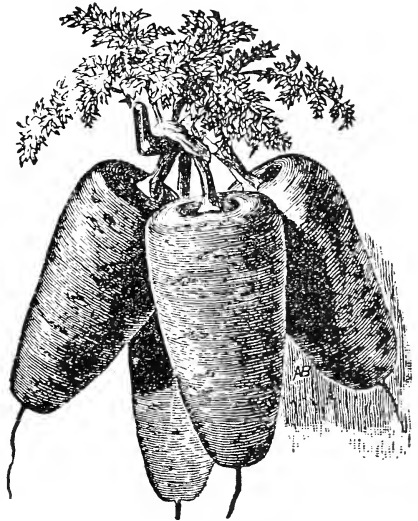
Early Short Horn Excellent for early planting out of doors. Tops small, coarsely divided; roots top-shaped, but tapering abruptly to a small tap; skin orange-red. Oz. 15c, lb. \$1.50.

Guerande, or Ox Heart Tops small for the size of the roots which are comparatively short but often reach a diameter of 5 inches, terminating abruptly in a small tap root. Flesh bright orange, fine grained and sweet. This variety is especially desirable for soil so hard and stiff that longer rooted sorts would not thrive in it. When young excellent for table use, and when mature equally good for stock. Oz. 15c, lb. \$1.25.

Chantenay Tops medium sized; necks small; roots tapering slightly but uniformly stump rooted and smooth; color deep orange-red; flesh very crisp and tender. Although this is a medium early sort, it furnishes roots of usable size as early as any, is a heavy cropper and is undoubtedly one of the best for both the market and private garden, while its great productiveness makes it very desirable as a field sort. Oz. 15c, lb. \$1.25.

James Intermediate A variety intermediate between the Danvers and Long Orange. It tapers to a point not so blunt as the Danvers and is more symmetrical and not so long as the Long Orange. Oz. 15c, lb. \$1.25.

Long Orange The most popular of the older sorts for farm use on mellow soil. An improvement obtained by years of careful selection of the best formed and deepest colored roots. Oz. 10c, lb. \$1.00.

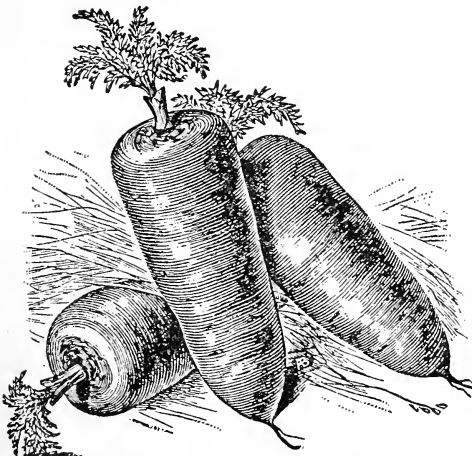


CHANTENAY CARROT

Danvers Grown largely on account of its great productiveness and adaptability to all classes of soil. Tops of medium size, coarsely divided. The smooth and handsome roots are deep orange of medium length, tapering uniformly to a blunt point; flesh sweet, crisp, tender and of a deep orange color. Although the roots of this variety are short, they produce as large a bulk as the longer field sorts and are more easily harvested. Oz. 15c, lb. \$1.25.

White Belgian Grows one-third out of the ground. Root white, green above ground, with small top. Flesh rather coarse. The roots are of large size and the variety is extensively grown for stock feeding. Oz. 10c, lb. \$1.00.

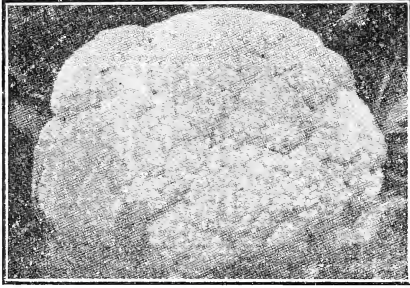
Improved Short White We think this distinct variety is destined to take first rank as a field carrot, owing to its enormous productiveness and the ease with which it can be harvested. Oz. 10c, lb. \$1.25.



DANVERS CARROT

CAULIFLOWER, Blumen Kohl

The Cauliflower delights in a rich soil and an abundance of water. Sow seed for an early summer crop in February or March in a hotbed. When plants are three or four inches high, transplant four inches apart in boxes or frames. In the middle of the spring or as soon as deemed prudent, the plants may be removed to open ground. Set plants from 2 to 2½ feet apart each way. For late Cauliflower sow the seed in a cool moist place about June 1st.



Early Snowball Cauliflower

Early Snowball The most popular and profitable of the Cauliflower family. Heads of uniform size, snowy white, very tender, and owing to its attractive appearance a most desirable market variety. This seed is imported from our Denmark growers under contract, being the best known source for Cauliflower seed. Oz. \$2.00, ¼ lb. \$7.00.

Early Erfurt Very similar to the Early Snowball, and by some considered equal to it. It is snow white, a sure header and worthy of a place alongside with the Snowball. Oz. \$2.00, ¼ lb. \$7.00.

Extra Early Paris An excellent early sort, and under favorable conditions will produce splendid results. Not as sure a header as the Snowball and Erfurt. Oz. 50c, ¼ lb. \$2.00.

CELERY, Selerie

CULTURE.—Celery seed is slow to germinate, and ample time must be given. Sow thinly; cover lightly. Keep constantly moist. Count on about 7,500 plants per ounce of seed, or ¼ pound per acre. When the seedling plants are 3 inches high they should be clipped at the top, to favor stocky growth, or else transplanted. Celery is mostly grown under flat culture, without trenches, in rows 4 feet apart, 6 inches apart in row. For home use celery is often grown in double rows, 10 inches apart, without trenching, and banked for winter storage just where it grows, without lifting.

Golden Self-Blanching This is the very best celery for early use. It is in condition as early in the fall as any, and we have yet to find an extra early sort equal in quality and appearance to our stock of **GOLDEN YELLOW SELF-BLANCHING**. Critical gardeners and consumers generally depend upon this variety to produce their best early celery. Plants of medium size, compact and stocky—with yellowish green foliage. As they mature the inner stems and leaves turn a beautiful golden yellow, so that blanching is effected at a small expense of time and labor. For beauty, color, crispness, tenderness, freedom from stringedness, added to a fine nutty flavor—it has no equal among the celery family. Oz. \$1.50, ¼ lb. \$5.00, lb. \$18.00.

Columbia An early maturing sort, unsurpassed in shape and quality. Plants of medium height, but very stocky and heavy. The stalks are thick—almost round. Similar to the Giant Pascal. With color of a rich yellow tint. Like the Golden Self-Blanching and which it resembles when trimmed and bunched ready for market. The foliage of a light shade of green tinged with yellow. Follows the Golden Self-Blanching. Quality exceptionally fine. Some connoisseurs consider it equal to the Golden Self-Blanching. Oz. 50c, ¼ lb. \$1.75, lb. \$6.00.

White Plume A handsome, very early sort. In great demand as a market celery, owing to its very attractive appearance. Requires a short time only for blanching. Leaves light green with tips almost white. As the plants mature the inner stems and leaves turn white, and require to be earthed up but a short time before they are in condition for use. While very attractive we do not consider it equal to the Golden Yellow Self-Blanching. Oz. 20c, ¼ lb. 75c, lb. \$3.00.

French Success This keeps the best of any celery yet introduced. Compact growth and short stem, so that plants may be well earthed up for blanching while growing close together. Foliage dark green, heart large and solid and formed early. Stalks white and thick, very brittle and of splendid quality. Free from stringiness. This is one of the best of late varieties—remaining in perfect condition late into the spring. Oz. 30c, ¼ lb. \$1.00, lb. \$3.50.

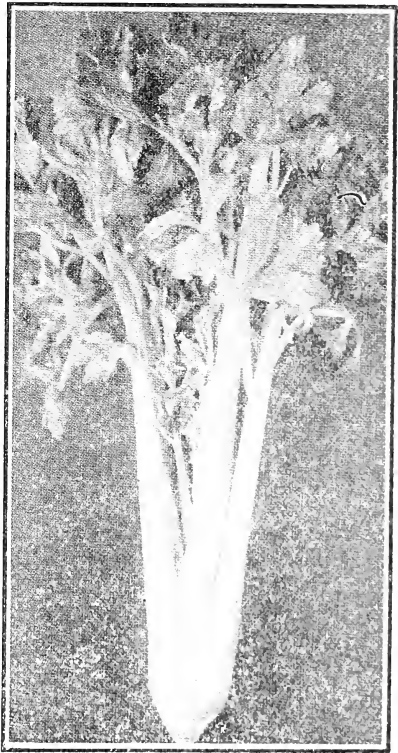
Sutton's Superb Pink

celery for family use. Oz. 75c.

Giant Pascal A splendid green leaved late variety, fine for fall and early winter use. It blanches to a beautiful yellowish white color. Very solid and crisp and of a fine nutty flavor. Stalk of medium height, very thick. The upper portions nearly round. Splendid for fall and winter use, especially in the South. Oz. 25c, ¼ lb. 75c, lb. \$2.50.

Winter Queen

This is without question the most valuable variety of celery for winter and spring use, even excelling the celebrated **PERFECTION HEARTWELL** as a winter keeper. It is also much stouter, thicker and heavier with double the amount of heart of any known celery. Oz. 25c, ¼ lb. 75c, lb. \$2.50.



Golden Yellow Self-Blanching

CELERIAC, or GERMAN CELERY**Large Smooth Prague**

The best of all with a large smooth root of splendid quality. Pkt. 10c, Oz. 40c.

Apple Shaped

Not as smooth as the Prague, but of equal quality and good form. Pkt. 10c, Oz. 40c.

Turnip Rooted

This is the most popular and best known variety. Per pkt. 5c, per oz. 15c.

CHICORY, Chichorie**Improved** Large leaves, suitable for greens. Oz. 15c, lb. 75c.**Large Rooted Sort**

Used for coffee. Oz. 15c, lb. 75c.

SWEET CORN

A rich, warm, alluvial soil is the best, but excellent sweet corn can be raised on any good, ordinary soil, if it is deeply and thoroughly worked before planting. In the North sweet corn should be planted as early as can be done without risking great loss from frosts or from rotting of the seed in the soil. If planted in rows, make the rows about three and one-half feet apart and place the seed fourteen to sixteen inches apart in the row, covering one inch deep with fine soil firmly pressed down. If planted in hills, make the hills for the early varieties three feet apart each way and plant six kernels to the hill. For the later sorts the hills should be not less than three and one-half feet apart each way. Hoe frequently, and when six inches high leave three or four plants in the hill. Give frequent and thorough but shallow cultivation until the tassels appear.

Mammoth White Cory

We consider this unquestionably the best extra early corn. Ears very large for so early a variety. Stalks about four feet high, each generally bearing two large, finely shaped ears which become fit for use as early as those of any variety in cultivation. They are twelve-rowed, six to seven inches long, very symmetrical and handsome, seldom with any opening between the rows at the base. Grain large, broad, very white and of remarkably good quality for such an early sort. The size and beauty of this variety give it ready sale even when the market is overstocked. Qt. 25c, 4 Qts. 75c, Bu. \$5.00.

Crosby's Early

A most excellent early variety of fine quality. Ears five and one-half to six and one-half inches long, fourteen rowed or more, with short nearly square grains which are very white, sweet and tender. Plants about four and one-half feet high. This is the sort so largely grown in Maine for canning and it is the use of this variety rather than any peculiarity of soil that has given Maine sweet corn its reputation for quality. Qt. 25c, 4 Qts. 75c, Bu. \$5.00.

Burbank's Early White

This is one of Luther Burbank's creations. Is earlier than the Golden Bantam. Kernel white, surprisingly productive, very sweet and unusually early. Ears of good size and very uniform. Especially fine for the market gardener's extra early trade. We have a small quantity only to offer this season and which we will distribute in small lots to our trade and especially to the market gardeners. Qt. 40c, 1/4 bu. \$2.00.

Golden Bantam

An early sweet corn with golden yellow grain, very tender and of excellent quality. Ears eight-rowed, six to seven inches long and of the medium size found most suitable for the table. The flavor is exceptionally rich and delicious. Height 4 to 5 feet. Our stock has been very carefully selected during several seasons and will be found decidedly superior to much that is offered. Qt. 30c, 4 Qts. \$1.00, Bu. \$6.00.

80 Day Monarch

Best main crop for truckers. Introduced in 1892. It is tender and sweet, and of extra high table quality. It almost always yields two perfect ears to the stalk, the ears being 9 to 12 inches long, compactly filled with grains from end to end. Ears ready for use a few days later than Mammoth White Cory, but much larger. Kernels large, tender and deliciously sweet. Ears are 12-rowed, and the tips are always filled out. Stalks of great vigor, about 6 feet high. It is a pink-cobbed variety, and preferred by many people on that account. Qt. 30c, 4 Qts. \$1.00, Pk. \$1.75, Bu. \$6.00.

Kendel's Early Giant

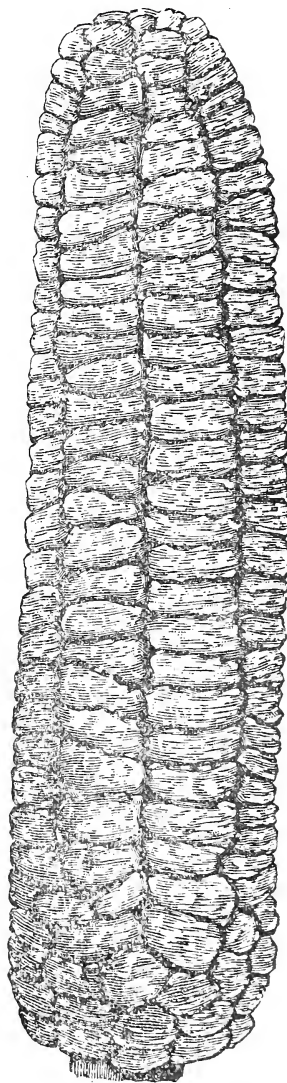
Remarkably large in ear for a second early sort and very popular in some localities. The stalks are about five and one-half feet high. The ears are about eight inches long, twelve rowed. The grain is rather broad and shallow, and the quality very good. Qt. 25c, 4 Qts. 75c, Bu. \$4.75.

Perry's Hybrid

This is a very popular Eastern variety. Stalks about six feet high, bearing two ears about eight inches long, twelve or fourteen rowed, which often have a red or pink cob; grain medium sized, cooking very white and tender. Matures a little later than Early Minnesota. Qt. 25c, 4 Qts. 75c, Bu. \$4.75.

Black Mexican

This corn, when in condition for the table, cooks a bluish black. It is surpassed by none in tenderness and is a most desirable second early sort; ears about eight inches long, usually eight-rowed. Qt. 25c, 4 Qts. 75c, Bu. \$4.75.



GOLDEN BANTAM CORN.

Early Evergreen We have tested many samples of Evergreen corn that were claimed to be earlier than Stowell's Evergreen and to be just as good, but we have never found any of them so valuable as the stock of this variety we offer. It has been proven both on our trial grounds and in the field to come into fit condition for use much earlier than Stowell's Evergreen and to remain in condition quite as long. Ears about seven inches long, with fourteen to twenty more or less irregular rows with very deep grain which is of the very best quality. Plants average from six and one-half to seven feet high and in ear resemble those of Stowell's Evergreen, but differ in earliness and we think are more uniform. A standard main crop variety for home garden and market; also well adapted for canning. Qt. 25c, 4 Qts. 75c, Bu. \$5.00.

Stowell's Evergreen This standard main crop variety excels all other late sorts in sweetness and productiveness. It is more popular than any other for canning, for marketing and for the home garden. Great care has to be exercised in the selection of stock to grow seed from, as this variety has a tendency to deterioration and a shorter grain, which makes it less sugary and desirable. We have a large and growing trade among canners and market gardeners who must have a genuine Stowell's Evergreen, and our stock is known as the safest seed for all purposes. Qt. 25c, 4 Qts. 75c, Bu. \$4.00.

Country Gentleman There is no sweet corn that compares with the Country Gentleman for sweetness. It is the variety par excellence where quality is desired. Market gardeners who make a specialty of growing for hotels and high class restaurant trade use this as a main crop in preference to any other. For home use it will be found superior and it is very productive. The fact that it is a favorite variety with canners proves its merit. Qt. 25c, 1/4 Bu. 75c, Bu. \$5.00.

Early White Cob Cory An extra early variety with remarkably white grains, especially when cooked. Ears are six to seven inches long. Kernels are large. Of good quality. Qt. 25c, 4 Qts. 80c, Bu. \$5.00.

Early Red Cob Cory One of the best extra early varieties. Ears are about six inches long and eight-rowed and well filled. This variety does especially well in the coast counties. We have customers who will not plant any other sweet corn than Red Cob Cory. Qt. 25c, 4 Qts. 75c, Bu. \$5.00.

CORN SALAD, Ackersalat Large round leaved or small seeded. Oz. 10c, lb. 75c.

CHERVIL, Gartenkerbel

Curled Treat like parsley. A valuable flavoring herb. Oz. 20c, lb. \$2.00.

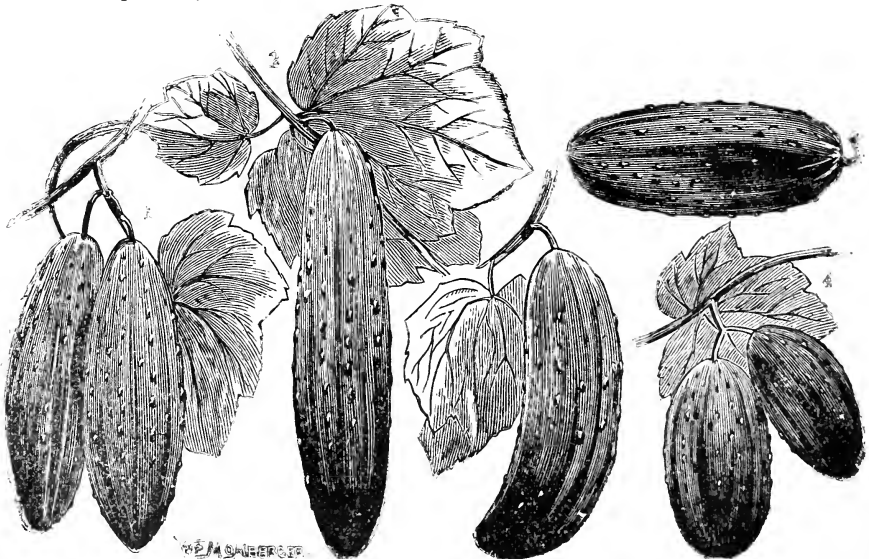
CRESS OR PEPPERGRASS, Kresse

Cress Fine for salads. Garden curled. Oz. 10c, lb. 75c.

Water Cress, Dwarf Fine curled, grows in shallow water. Oz. 20c, lb. \$2.50.

CUCUMBERS, Gurke

CULTURE.—Flourish best in a rich, warm, sandy loam. Sow when danger of frost is over in hills four or five feet each way. As the young plant has many enemies sow thickly half an inch deep, and thin out finally to three or four plants to the hill. Use one ounce of seed to 75 hills, two to three pounds to the acre. Gather cucumbers by cutting, not tearing. Leave none to ripen if you want a full crop.



The Above Shows the True Type of Cucumbers

No. 1, Early Cluster; 2, Long Green; 3, Early Frame; 4, Early Russian; 5, White Spine

Early Russian The earliest variety and probably the hardiest. Fruit 3 to 4 inches long, 1 1/2 to 2 inches in diameter, oval, pointed at both ends and covered with fine, small spines. Vine of vigorous growth and productive. Oz. 10c, 1/4 lb. 30c, lb. \$1.00.

Early Cluster An early and very productive variety. Fruit small, thick at the end, dark green, but lighter at blossom end, borne in pairs or clusters and largely near the root. Used to some extent for pickles. Oz. 10c, ¼ lb. 30c, lb. \$1.00.

Early Frame, or Short Green Fruit short, straight, small at each end, bright green, lighter at blossom end, and, although small, attractive and of excellent quality. Used both for slicing and pickling. Vine vigorous and produces fruit of suitable size for slicing. Oz. 10c, ¼ lb. 30c, lb. \$1.00.

Improved White Spine, or Arlington Great bearer; standard for outdoors. Oz. 15c, ¼ lb. 30c, lb. \$1.00.

Peerless White Spine Larger than Improved White Spine. Excellent for forcing. Oz. 15c, ¼ lb. 30c, lb. \$1.00.

Long Green Fruit from 10 to 12 inches long, dark green, very firm and crisp. It is used largely for slicing, but on account of its firmness and crispness is popular with some for pickling and is especially desirable, when mature, for sweet pickles. Vine of strong, vigorous growth, and productive. Oz. 10c, ¼ lb. 30c, lb. \$1.00.

Cumberland A distinct variety of the hardy White Spine type. Fruit large, symmetrical, dark green and thickly set with fine spines. Though especially recommended for pickling, it is valuable for slicing, being of excellent quality. Vine vigorous, prolific, bears a long time. Oz. 15c, ¼ lb. 40c, lb. \$1.25.

Japanese Climbing Vigorous grower, with strong, grasping tendrils which enable it to climb trellis, netting or brush. Fruit of good size. Oz. 10c, ¼ lb. 30c, lb. \$1.00.

Boston Pickling A favorite for pickling. Medium size; smooth; light green; productive. Oz. 10c, ¼ lb. 30c, lb. \$1.00.

Chicago Pickling This variety is preferred above all others by some of the largest pickling establishments in Chicago and elsewhere. It is one of the best for the purpose, combining almost every good quality, and being alike satisfactory to grower and pickle maker. I have a choice strain of this seed. Oz. 10c, ¼ lb. 30c, lb. \$1.00.

Rollison's Telegraph A standard greenhouse variety. English greenhouse grown stock. Pkt. 50c.

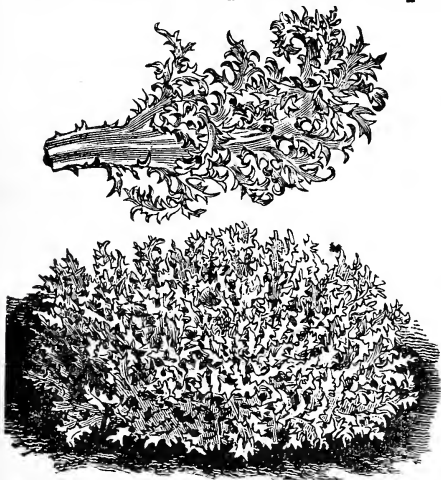
Small Gherkin A curious, rough, little cucumber, used exclusively for pickling, for which purpose it is in high favor. Makes handsome pickle of first-class quality. Oz. 20c, ¼ lb. 50c, lb. \$1.50.

EGG-PLANT, Eierpfanze

CULTURE.—Plant the seed in March in a hotbed, or, for family use, in flower pots in a warm window. Transplant in open ground after weather has become warm and settled, in rows two feet apart each way. They require rich soil and as favorable a location for warmth as the garden will afford. One ounce to one thousand plants.

Black Beauty Considered the earliest of the large fruited varieties. Color, a rich purple. Oz. 35c, ¼ lb. \$1.00, lb. \$3.75.

New York Improved Purple Surpassing all in size of fruit. Standard market sort. Oz. 35c, ¼ lb. \$1.00, lb. \$3.75.



Endive

GARLIC, Knoblauch

Sets, Oz. 10c, lb. 40c.

HERBS

See page 34.

KALE, or Borecole

For early use, sow in May and transplant in June, and treat generally as for cabbage.

Dwarf Curled Scotch A standard variety. Oz. 10c, ¼ lb. 25c, lb. 75c.

KOHL-RABI

White, above ground. Oz. 25c, lb. \$2.00.

Purple, above ground. Oz. 25c, lb. \$2.00.

LEEK, Lauch

American Broad Flag The standard variety. Oz. 15c, ¼ lb. 40c, lb. \$1.25.

ENDIVE, Endivie

CULTURE.—For early use sow as soon as the ground can be worked in the spring, in drills 15 inches apart, and thin plants to 6 to 8 inches in a row. Any common garden soil will do, but a rather moist situation is preferable. To blanch the leaves, gather them carefully together when perfectly dry, and tie with matting or any soft fibrous material. Another method is to invert flower pots over the plants. The leaves are very highly esteemed for use as salads. One ounce will sow 150 feet of drill.

Fine Moss Curled Very ornamental. A little more curled than the London. Oz. 15c, ¼ lb. 40c, lb. \$1.25.

London Green Curled A standard sort. Oz. 15c, ¼ lb. 40c, lb. \$1.25.

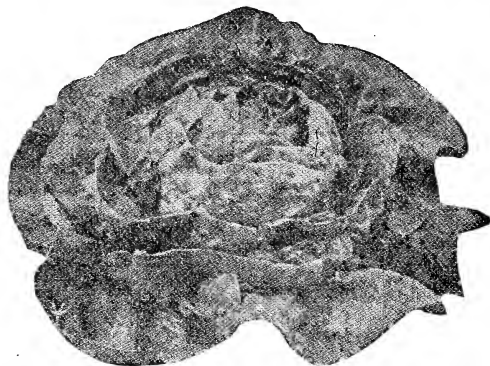
Broad Leaved Batavian A large summer variety. Oz. 15c, ¼ lb. 40c, lb. \$1.25.



Kohl-Rabi

LETTUCE, Salat

CULTURE.—Lettuce thrives on nearly all soils, but because the growth should at all times be rapid to insure crispness and best flavor, the soil should be heavily enriched and well worked before planting. Lettuce being quite hardy, seed may generally be sown as soon as ground can be fitted, as, while prolonged or continued freezing will kill the plants, they are but little injured by an ordinary frost. Seed may also be sown in the hotbed in gentle heat, and the plants, if well hardened by having been often exposed to the air, may usually be set in the open ground very soon after the time suggested for sowing seed outdoors.



Big Boston Lettuce being fit for cutting. The plant is upright, forms a loose cluster of large thin bright green leaves, savoyed, finely crumpled at the edges. Very attractive and desirable for garnishing. Pkt. 5c, Oz. 15c, lb. \$1.50.

Onondaga This remarkable variety was introduced by us many years ago. A splendid greenhouse sort, slightly fringed, forming a semi-head, a wonderful shipping and keeping variety, green under glass and of slightly reddish cast when grown in the open. Tender, crisp. Pkt. 5c, Oz. 15c, lb. \$1.50.



Grand Rapids Lettuce

Denver Market Cabbage, butter head, medium small size, medium green. One of the old standard varieties, and in our experience have found it identical with White Seed Tennisball. Pkt. 5c, Oz. 15c, lb. \$1.25.

New York Head Curled or crisp as Iceberg, dark green heads somewhat conical. Pkt. 5c, Oz. 15c, lb. \$1.25.

Old Lettuce Seed for Birds Oz. 5c, lb. 50c.

Big Boston The best large heading and suitable for forcing. It produces fine large yellow heads. Leaves are white, crisp, tender and sweet. Pkt. 5c, Oz. 15c, lb. \$1.25.

Black Seeded Simpson The most popular loose leaf variety. Crisp and tender. It grows a fine green leaf. The inner leaves form a loose head. Pkt. 5c, Oz. 15c, lb. \$1.25.

Simpson Early Curled (White Seeded)—A very extensively used early loose leaved or clustering variety. Leaves light green, slightly frilled and much blistered. Crisp, sweet and tender. Especially adapted for thick sowing. Very fine for poultry feeding. Pkt. 5c, Oz. 15c, lb. \$1.25.

Grand Rapids (Black Seed) — As a greenhouse forcing lettuce this stands at the head of the list. Quick growing, very hardy—not liable to rot. Will remain in good condition several days after

Hanson Head (Seed white.) A very desirable late summer lettuce. The plant is compact and forms a cabbage-like head which remains in condition longer than summer-head sorts. Outer leaves bright, yellowish green and broad. Somewhat crumpled and frilled edge and with a distinctive mid-rib. Inner leaves white, crisp and sweet. Pkt. 5c, Oz. 15c, lb. \$1.50.

Paris White Cos The Cos Lettuce differs in shape from other sorts. Head being elongated and of conical form, about nine inches in height and about six inches in diameter. Outer coloring yellow green. To secure best results it should be tied up. Pkt. 5c, Oz. 15c, lb. \$1.50.

Yellow Seeded Butter Cabbage Butter head, medium large, medium green, leaves crumpled and rather thick. Is similar or same as silver ball. Pkt. 5c, Oz. 15c, lb. \$1.25.

Deacon Head Cabbage Butter head, medium size, medium green, leaves thick. Does not form a decided head but a well folded one, which is very oily and golden yellow inside. Pkt. 5c, Oz. 15c, lb. \$1.25.

MUSKMELON, Melone

The Muskmelon succeeds best in warm, rich soil. While both plant-food and humus are necessary to all plants, all vines require an extra amount. Manure contains both, while rotted turf and commercial fertilizer combined supply both. If manure is used it should be well rotted, finely pulverized and evenly distributed throughout the soil. If plant-food is to be supplied by the use of commercial fertilizers, then land should be selected which, a short time before, was in grass, the turf well pulverized and the fertilizer, like the manure, evenly distributed. The muskmelon should not be planted until all danger of frost is past. Plant from 4 to 5 feet apart each way, allowing ten or more seeds to each hill, and cover with an inch of soil. If young plants are attacked by the striped beetle, dust with either air-slaked lime, soot or ashes, well diluted with fine road dust, taking care, however, that none of these is used too freely. Thin to three or four plants to the hill.

Paul Rose, or Petoskey This excellent melon is the result of a cross of the Osage and Netted Gem, and combines the sweetness of the former with the appearance of the Gem. Fruit oval, finely netted, about 5 inches in diameter. Flesh rich orange and even sweeter than the Osage. Oz. 10c, ¼ lb. 40c, lb. \$1.00.

Emerald Gem

Fruit of medium size, skin very dark green, generally smooth; flesh thicker than of most varieties, in color rich salmon, and not surpassed in richness and flavor. More certain to produce uniformly good melons than is perhaps any other variety. Oz. 10c, $\frac{1}{4}$ lb. 40c, lb. \$1.00.

Rocky Ford (Netted Gem)

More largely grown than any other of the small or basket melons and shipped in enormous quantities from Colorado and Arizona. Fruit oval, slightly ribbed, densely covered with fine netting; flesh green, thick, very sweet and of rich flavor. Oz. 10c, $\frac{1}{4}$ lb. 30c, lb. \$1.00.

Improved Green Nutmeg

Large, round, slightly flattened at both ends, ribbed and covered with coarse netting; flesh thick, of fine flavor. Vine vigorous and productive. Oz. 10c, $\frac{1}{4}$ lb. 30c, lb. \$1.00.

Surprise

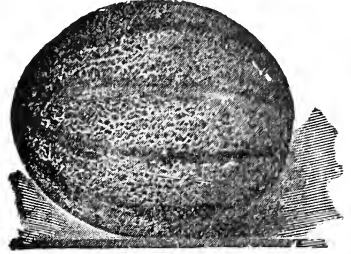
Fruit oval, slightly ribbed, netted in places, skin yellowish white; flesh deep salmon, of good quality. Vine hardy, productive and bears early. Oz. 10c, $\frac{1}{4}$ lb. 40c, lb. \$1.00.

Extra-Early Hackensack

Fruit of good size, nearly round. Flesh green, a little coarse, but very juicy and sweet, and of good flavor. Vine very productive. Oz. 10c, $\frac{1}{4}$ lb. 40c, lb. \$1.00.

Hoodoo

The Hoodoo was originated by Mr. Paul Rose, who sent out that famous melon that bears his name. Our stock was raised by a firm at Rocky Ford, Col., where the best of melons are grown and shipped to all parts of the country. Melon nearly round and orange-fleshed; vine very vigorous, with no sign of rust; a fine cropper. Quality of the best. It varies more or less in size and shape. Oz. 10c, $\frac{1}{4}$ lb. 40c, lb. \$1.25.



Rocky Ford Muskmelon

WATERMELON, Wassermelone**Sweet Heart**

Introduced in 1894 and is very popular as a shipping melon particularly in the South. Vine vigorous and very productive, ripening its fruit evenly. Fruit of largest size, oval, very heavy, rind thin but firm; color very light green, very slightly veined with a little darker shade. Flesh bright red, firm but very tender and sweet. Fruit remains in good condition a long time after ripening. Seed black. Our stock will be found very uniform in shape, size and color. Oz. 10c, lb. 75c.

Cuban Queen

This magnificent variety was originally brought from the West Indies, and seed first offered in 1881. The melons are of large size, oblong in form, slightly tapering at the stem end. Skin beautifully striped in dark and light green. Rind quite thin, but tough enough for shipping. Flesh bright red, remarkably firm, and of luscious quality. Oz. 10c, lb. 75c.

Sweet Heart

Most popular for market. Large heavy fruits of oval or round form; skin very pale green with distinct netted lines of a slightly darker shade. The large handsome fruits bear shipping well. The solid flesh is a deep rich red, crisp and melting. Its luscious quality has made it a leading favorite in the Philadelphia markets. Oz. 10c, lb. 75c.

Dark Icing, or Ice Rind

Fruits of round or shortened oval form, with dark-green skin. Flesh deep pink, very sweet and melting. Justly popular with New Jersey truckers, as its noted fine quality makes the melons sell well on the markets. Oz. 10c, lb. 75c.

Peerless

Sometimes sold as Ice Cream. One of the best early sorts for the home garden and for market gardeners who deliver direct to consumers. Vine moderately vigorous, hardy, productive. Fruit medium sized, oval, but somewhat uneven in shape, bright green, finely veined with a darker shade. Rind thin, flesh bright scarlet, solid, crisp and very sweet. Seed white. Oz. 10c, lb. 75c.

Cole's Early

A very early melon; just right in size and shape. Oz. 10c, lb. 75c.

MUSHROOM

The Mushroom is an edible fungus of which there are numerous varieties. We handle the ordinary commercial variety of a creamy white color with loose gills which underneath are of pinkish-red, changing to liver color. The mushroom produces "seed" or spores and there is developed a white, fibrous substance in broken threads, called spawn, which is developed and preserved in horse manure, pressed in the form of bricks. Mushrooms can be grown in cellars, in sheds, in hotbeds or sometimes in the open air, the great essential being a uniform degree of temperature and moisture. Our space is too limited here to give the necessary cultural directions, but these are published in book or pamphlet form.

Pure Culture Mushroom Spawn

By a newly discovered process of selection and grafting, the spawn is scientifically propagated so that large, vigorous and finely flavored mushrooms are reproduced. The sort we offer is earlier, more productive and a marked improvement on wild spawn, either French or English. Brick (about $\frac{1}{4}$ lbs.) 25c; 5 bricks \$1.00.

MUSTARD

Mustard is not only used as a condiment, but the green leaves are used as a salad or cut and boiled like spinach. Sow as early in the spring as the ground will permit, in drills about eighteen inches apart, covering one-half inch deep. For succession, sow every few weeks till autumn. Water freely. In the South the seed may be sown in autumn and the plants used early in the spring as a salad and for greens.

White English

Leaves comparatively small and smooth, deeply cut or divided and of medium dark green color. Plant upright, of rapid growth and soon bolts to seed. Leaves, when young, are mild and tender. Seed light yellow and larger than that of other varieties. Oz. 10c; lb. 40c.

Southern Giant Curled

Leaves large, light green with tinge of yellow, much crimped and frilled at edges. Plant upright or slightly spreading in growth. Highly esteemed in the South for its vigorous growth, hardiness and good quality. Seed small, reddish brown to nearly black. Oz. 10c, lb. 75c.

NASTURTIUM

Tall Mixed Garden

Sometimes called Indian Cress. Grown not only for ornament but the beautiful orange colored flowers and foliage are used for garnishing and the young leaves or shoots are excellent for salads. The green seed pods are greatly esteemed by many for use in mixed pickles. Early in spring sow, preferably in rather light soil, in rows 3 feet apart and 2 inches apart in the row, covering one inch deep. When the young plants are about four inches high thin to six inches apart in the row. The vines can be supported if so desired by stakes, strings or brush. Oz. 10c, lb. 75c.. For other varieties of Nasturtium see flower seed pages.

OKRA, OR GUMBO

The young seed pods are used in soups, stews, catsups, etc. Highly esteemed in the South. After danger of frost is past, the ground being warm and in good condition, plant in rows about two and one-half feet apart, covering with about an inch of fine soil firmly pressed down. When about three inches high, thin to about one foot apart in the row. Cultivate and keep free from weeds. The pods are in best condition for use when from one to three inches long.

White Velvet

Plant is about three and one-half feet high, early maturing and very productive. Pods white, long, smooth and are tender until nearly full sized. Oz. 10c, lb. 60c.

ONIONS, Zwiebel

How to Raise Onions for the Market

THE SOIL.—We prefer a soft, dark sandy loam, not too fine. This is much better if it has been cultivated with hoed crops, kept clean from weeds and well manured for two years previous, because if a sufficient quantity of manure to raise an ordinary soil to a proper degree of fertility is applied at once, it is likely to make the onions soft. The same result will follow if we sow on rank mucky ground or on that which is too wet, and it is impossible to raise either a large or profitable crop on stiff clay, very light sand or gravel.

PREPARATION.—Onions respond well to very liberal manuring. As much as forty loads of stock manure well composted or one ton of high grade commercial fertilizer per acre needed will vary with the soil, the seed used and the kind of onions desired. Thin seeding gives much larger onions than thick seeding. Four or five pounds per acre is the usual quantity needed to grow large onions. We prefer a drill that sows a very close row.

CULTIVATION.—As soon as the young plants can be seen in the rows give a shallow working either with rake or some other tool that pulverizes well the whole top soil. Work the crop again in a few days with a hoe or tool that cuts the ground over, this time as closely as is possible to the row without injury to the young plants; follow as quickly as possible with a thorough hand weeding.

Prizetaker Grows to an immense size and for fall marketing is unexcelled. Although of such great size, it is very hardy and a fair winter keeper, as it ripens up hard and firm; very fine grained, and of mild, delicate flavor. The outside skin is rich yellow while the flesh is white. To get the best results from this onion the seed is sown in beds and transplanted. It will, however, make a good crop if sown in the ordinary way. Oz. 25c, lb. \$1.50.

Southport White Globe

This grows to a very large size and is a perfectly globe-shaped onion. Color is a clear pure white. This variety is used by the market gardeners for bunching. Oz. 25c, lb. \$2.50.

Early Flat Yellow Danvers

A good variety, but not as round or quite as early as the Yellow Globe Danvers. Very productive. Oz. 20c, lb. \$1.50.

Southport Yellow Globe

A large perfectly shaped Globe onion and an excellent onion for keeping throughout the winter. A very heavy cropper, handsome in appearance and good dark yellow color. Oz. 20c, lb. \$1.50.

Yellow Globe Danvers

This fine onion is of large size. An early and abundant cropper. Bulbs very thick, flat or slightly convex bottoms, full oval top with small neck and rich brownish yellow skin. Oz. 20c, lb. \$1.50.

Michigan Yellow Globe

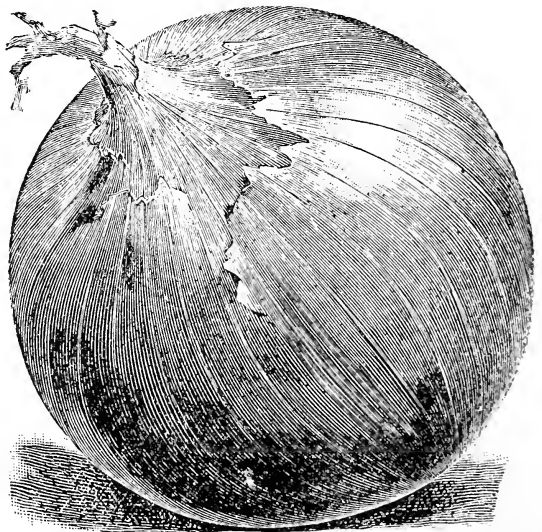
The bulbs are large and uniformly spherical with very small necks and the largest diameter below the center of the bulbs, of a rich orange color. Oz. 20c, lb. \$1.50.

Ohio Yellow Globe

An early Globe onion, small neck and very uniform in size and color. Very popular in the marsh onion sections of Ohio and Indiana. We have an excellent stock of this standard variety. Oz. 20c, lb. \$1.50.

Southport Red Globe

This is a fine keeper. Large size and considered one of the best red onions. Flesh is fine grained, very mild and tender. Oz. 20c, lb. \$1.75.



Yellow Globe Danvers Onion

White Portugal American Silver Skin. This is the best sort to sow—for onion sets or for pickling. When sown thickly for either it makes a small, round, hard bulb. Oz. 30c, lb. \$2.50.

Philadelphia Silver Skin Very desirable for family use. Flavor mild and pleasant. Skin silvery white. Sets grown from this sort are good keepers. Oz. 30c, lb. \$2.50.

Large Red Wethersfield We have a very fine and select strain of this sort. Color is deep purplish red, flesh white, moderately grained and very firm. Yields an enormous amount per acre, and is one of the best winter keeping onions. Oz. 20c, lb. \$1.50.

Extra Early Flat Red This variety matures from ten days to two weeks earlier than the Red Wethersfield. The color is a deep rich red, fine grain and close. Oz. 20c, lb. \$1.50.

PARSLEY, *Peterselia*



Double Curled Parsley

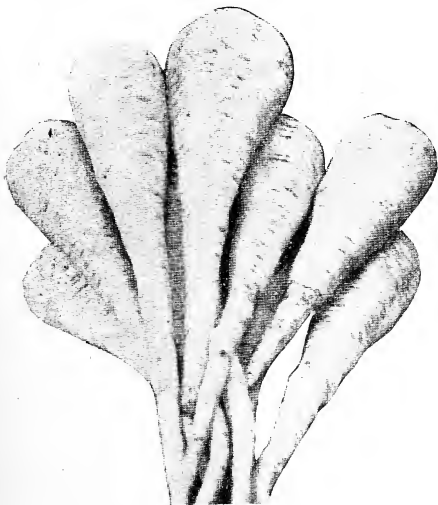
CULTURE.—Sow seeds in shallow drills in the early Spring for border, or in rows 12 to 18 inches apart, care being taken that the drills be not more than one-half inch in depth, and that the seed be well pressed down after sowing, as the seed germinates very slowly, three to five weeks elapsing sometimes before it makes its appearance. Use one ounce to 150 feet of drill, three pounds to an acre. Cultivate frequently.

Plain Parsley The leaves of this variety are flat, deeply cut but not curled. Very desirable for flavoring soups and stews and for drying. It is a favorite on account of its very dark green leaves, as well as its hardness. The curled sorts are very extensively used for garnishing. Pkt. 5c, Oz. 15c, lb. \$1.00.

Champion Moss Curled This is a vigorous, compact growing variety, excellent for garnishing and flavoring. A handsome decorative plant. Leaves very finely cut and so closely crisped or curled as to resemble bunches of moss. Fine deep green color and very attractive foliage. Pkt. 5c, Oz. 15c, lb. \$1.00.

PARSNIPS, *Pastinake*

CULTURE.—Sow in early spring, in rows two to three feet apart, thin to four or six inches in the row. One ounce of seed will sow 200 feet of drill, four to five pounds per acre in drills two and one-half feet apart. Cover the seed one-half inch. Use rotted manure and fertilizer. Parsnips may be left in the ground all winter.



"Kelway's Don" Parsnip

Marrow Parsnip This is a fine new Parsnip of English origin which we confidently offer to our trade. It is very fine grained and exceedingly sweet, while the peculiar parsnip flavor is fully reserved. The roots are unusually smooth and attractive in appearance. The best of all parsnips for private or market garden use. Oz. 15c, lb. 75c.

Kelway's Don A half long variety of our introduction, selected for handsome form, size, whiteness of skin and flesh, and firmness and solidity of texture. Recommended for exhibition (see illustration). Oz. 15c, lb. \$1.00.

Gurnsey (Improved Half-Long)

Greatly improved strain. The roots do not grow as long as the Hollow Crown, but are of greater diameter and very easily gathered. A very heavy cropper. Roots very smooth. Flesh fine grained and of excellent quality. Oz. 10c, lb. 75c.

Improved Hollow Crown This really is the greatest old-time favorite among the parsnips and has a host of friends which it will never lose. It is very smooth, white with a very thick shoulder and tapering down to a graceful point. One of the best known, none better. Oz. 10c, lb. 75c.

PEAS, Erbsen

For early peas the soil should be light and warm, but for general crop a moderately heavy soil is better. Fresh manure and very rich or wet mucky soil should be avoided, as they cause a rank growth of vine at the cost of the quality of the peas; such soil is often the cause of early sorts maturing unevenly. Sow as early as possible a few of some early variety on warm, quick soil, prepared the fall before, planting in double rows six to eight inches apart and two and one-half to four feet between the double rows. The general crop can be delayed until later, but we have met with better success from sowing all the varieties comparatively early, depending for succession upon selecting sorts that follow each other in maturity. The peas will give quicker returns if covered only one inch deep and where earliness is most important they may be treated in that way. Larger pods and more of them will be produced if the seed be planted in trenches three to six inches deep and covered with only one or two inches of soil; when the plants are five or six inches high fill the trench level with the surface; this will secure deep rooting, prevent mildew and prolong the bearing season. If the peas be covered to the full depth at first, or if water be allowed to stand in the trenches, they will not germinate or grow well. All varieties growing more than one and one-half feet do better if staked up or brushed when four to six inches high. The support is usually given by sharpened branches of trees set between the double rows.

Earliest of All, or Alaska By careful selection and growing we have developed a stock of this smooth blue pea of unequalled evenness in growth of vine and early maturity of pods which are filled with medium sized, bright green peas of good flavor. Vines of medium height, about two and one-half to three feet and of distinctive light color. Pods of good size, about two and one-half to two and three-fourths inches long. Seed small, smooth, and bluish green in color. Matures all the crop at once and is an invaluable variety for market gardeners and canners. Qt. 25c, Bu. \$5.50.

Thomas Laxton A very early wrinkled variety of great merit. Vine vigorous, of medium height, about three feet, similar to that of Gradus, but darker in color, hardier and more productive. Pods large, often four inches long, with square ends, similar to but larger, longer and darker than those of Champion of England and as uniformly well filled. The green peas are very large, of fine deep color and unsurpassed in quality. We are certain that the earliness and productiveness of this pea need only to be known to make it one of the most popular sorts for the market and home garden, as in appearance and quality it is one of the very best varieties yet produced. Qt. 40c, Bu. \$8.00.

Gradus A very early, wrinkled pea. Vine similar in appearance to Telephone, but of medium height, only about three to three and one-half feet. The pods are very large, about four and one-fourth inches long, very nearly as large as those of Telephone, uniformly well shaped, pointed, handsome and more attractive than those of the first earlies. Peas very large, of splendid quality and beautiful light green color which they retain after cooking. Practically the same as Prosperity. Qt. 40c, Bu. \$8.50.

American Wonder Vigorous, productive vines, with a luxuriant foliage, and producing the leaves on one side of the stock, growing from 9 to 12 inches high. On account of its dwarf habit of growth it is very desirable for private garden use. Pods are light colored, straight, round, about two and one-half inches long and blunt at the end. Fit for picking fifty-five days from planting. Seed is wrinkled, green, medium in size and square at the ends. Qt. 30c, Bu. \$6.50.

Nott's Excelsior Resembling Gems in habit, but more dwarf and uniform in growth, height 12 to 17 inches, with rather light foliage. Pods are light in color, round, about two and one-half inches long, blunt at the ends. Fit for picking fifty-six days from planting. Seed green, wrinkled, medium in size and square at the ends. Qt. 30c, Bu. \$7.50.

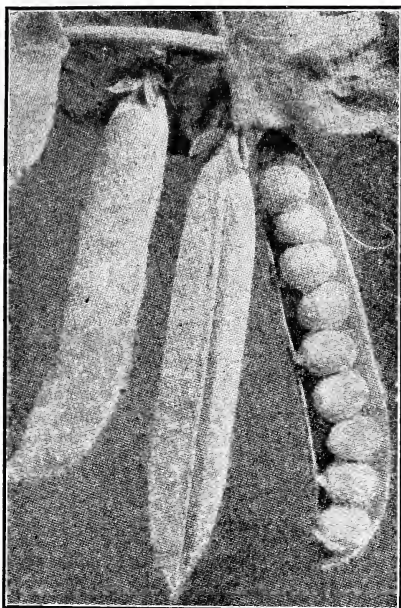
Little Marvel We are sure that as soon as American gardeners, whether for pleasure or profit, become acquainted with Little Marvel they will drop both Little Gem and Nott's Excelsior, popular as these two varieties are today. The vines, of dwarf even growth, average fifteen inches in height and are heavily set with fine pods, frequently borne in pairs. The pods average two and one-half inches in length, are square at the bottom and well filled with six to seven quite large, deep green peas. The peas are ready for the table fully as early as American Wonder or Nott's Excelsior, while the pods are larger and the vines produce a much heavier crop. All who desire a fine early crop of the choicest quality of wrinkled peas will be delighted with Little Marvel. Qt. 40c, Bu. \$8.50.

Premium Gem Desirable early green wrinkled dwarf variety similar to but better than McLean's Little Gem. The vine is very productive and grows to a height of from fifteen to eighteen inches. The pods are of medium size and crowded with six to eight very large peas of fine quality. The seed is green, large, wrinkled, often flattened. Qt. 30c, 4 Qts. \$1.00, Bu. \$6.00.

Laxtonian This handsome new wrinkled pea is the largest podded of the dwarf varieties on our list. The beautiful dark green pods are similar to Gradus in shape and splendid quality, are very nearly as large in size and mature a little earlier. The vines are vigorous and productive, averaging 15 to 18 inches high; foliage dark green; pods about four inches in length. Seed light green, large, wrinkled, flattened, irregular in shape. Qt. 40c, Bu. \$9.00.

Potlatch Strong, vigorous vines of even growth, 20 to 24 inches in height, with luxuriant dark foliage, bearing pods medium green in color three and one-half to four inches in length. Broad and pointed at the ends. No variety known will produce more pods, and no pods could possibly shell out better. The Potlatch is a variety from which anyone may expect great things. Fit for table use 61 days from planting. Seed green, wrinkled, large in size. We consider ourselves very fortunate in having secured and introduced this pea. Qt. 40c, Bu. \$8.50.

McLean's Advancer A green, wrinkled variety of medium height, about two and one-half to three feet, with long, broad pods, about two and three-fourths to three inches long, which are abundantly produced and well filled to the ends. This pea is used very extensively by market gardeners because of its productiveness, the fine appearance of its pods, and is popular with consumers on account of its quality. It is also largely used by canners. By careful selection we have developed a strain showing marked improvements in vigor of plant, size of pod and productiveness. Qt. 30c, Bu. \$6.00.



Telephone Peas

Duke of Albany A most valuable variety of the Telephone type; remarkably hardy in growth, producing dark green pods of large size, well filled with extra large sweet peas. The vines grow three feet in height and are very productive. Qt. 35c, Bu. \$6.00.

Telephone This has become the leading pea with market gardeners whose trade appreciates fine appearance and high quality. Vines tall and vigorous, growing about four feet high, with large, coarse, light colored leaves and producing an abundance of pointed pods of largest size, often four and one-half to five inches long, attractive bright green, filled with very large peas which are tender, sweet and of excellent flavor. It comes into use soon after the Premium Gem and is one of the best sorts for either home or market. Qt. 35c, Bu. \$6.00.

Alderman This comparatively new pea is in many respects the very best early main crop variety of the valuable Telephone type. The vines are tall growing, about four and one-half to five feet high, dark green, vigorous and exceedingly productive. Pods of largest size, often five to five and one-half inches long, dark green, similar to but a little larger and a shade darker in color than Duke of Albany and about the same in season. The peas are of largest size and unsurpassed in quality. Market gardeners are demanding the large podded, dark colored sorts which retain their fine appearance even after shipping a long distance. The Alderman answers these requirements and furthermore is the most productive variety of this class. We recommend it unreservedly. Qt. 35c, Bu. \$6.00.

Telegraph, or Long Island Mammoth

Stronger growing and hardier vine with darker foliage and pods than the Telephone; peas very large and of dark green color; seed almost smooth. Vines tall, about four to four and one-half feet. Pods very large, about four and one-half inches long. A splendid sort for the market garden; will give good returns even under conditions that would cause most varieties to fail. Qt. 30c, Bu. \$5.00.

Later Varieties

Improved Stratagem

Most stocks of the large podded, semi-dwarf, English varieties of peas have been so wanting in uniformity and evenness of type as to disgust American planters, but by constant effort we have developed a stock which comes true and we do not hesitate to pronounce it one of the best of the large podded sorts. The pods are of largest size, long and pointed, dark green, and uniformly filled with very large, dark green peas of the finest quality. Qt. 30c, Bu. \$7.00.

Horsford's Market Garden

The vine is of medium height, hardy and very productive, giving the greatest number of pods of any on our list. Foliage dark green, leaves small. Pods contain five to seven medium sized, sweet, dark green peas which retain well their color and sweetness after canning. Qt. 30c, Bu. \$7.00.

Champion of England

A very productive variety, universally admitted to be one of the richest and best flavored of the late peas. The vines are four to five feet high. The seed is light green and much shriveled. Very inferior and mixed stocks of this sort are frequently offered, but when the seed is as well grown and selected as that we offer we consider the variety equal in quality to any in cultivation and one of the best of its season, either for the home garden or market gardener. Qt. 30c, Bu. \$8.00.

Melting Sugar

(Edible pods) There is a class of peas not generally known in this country but much used abroad in which the sweet, brittle and succulent pods have none of the tough, inner lining found in the ordinary varieties of garden peas. They are used in the same way as snap or string beans. Qt. 30c, Bu. \$6.00.

Large White Marrowfat

The vines of this variety are about five feet high and of strong growth. The pods are large, cylindrical, rough, light colored, and well filled; seed large, smooth, round and light yellow. The variety is excellent for summer use but is inferior in quality to most of the newer sorts, although undoubtedly one of the most productive of the garden varieties. Qt. 25c, Bu. \$6.00.

Large Blackeye Marrowfat

An excellent variety, growing about five feet high. It is a very prolific bearer of large pods. Seed large, smooth, round, light yellow with black eye. One of the very best of the Marrowfat sorts. Qt. 25c, Bu. \$6.00.

PEPPER, Pfeffer

Peppers are most largely used for seasoning meat and vegetable dishes; also for making chow chow and chili sauce. The culture is the same as for egg plant and the plants need quite as much heat to perfect them. Sow seed early in hotbed, or about middle of spring in open seed bed, the soil being light and warm. When three inches high transplant in rows about two and one-half feet apart and two feet apart in the row. Cultivate and keep free from weeds. Guano, hen dung or any other bird manure hoed into the surface soil when the plants are about six inches high will undoubtedly increase the product.

Red Cherry

A second early sort. Plant tall, bearing a profusion of round, bright red fruits which are very pungent when ripe. A very ornamental plant when in fruit. O.. 25c, 1/4 lb. 75c, lb. \$2.50.

Giant Crimson The earliest maturing of the extremely large, red sweet peppers and surpassed by none in evenness of size and shape. The plant is vigorous and upright, growing two and one-half to three feet high, larger than that of Chinese Giant and more productive. The fruits are of the largest size, ripen earlier than any of the other very large sorts and average heavier, as the flesh is exceptionally thick. Color deep green when fruit is young, deep crimson when matured; flavor very mild. Oz. 40c; $\frac{1}{4}$ lb. \$1.50, lb. \$4.50.

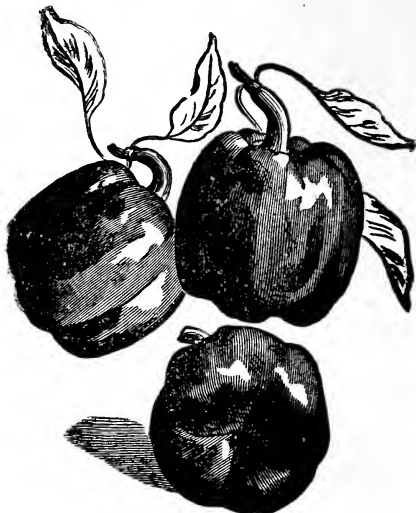
Red Chili A late variety. Pods bright, rich red, about two inches long, one-third to one-half inch in diameter at the base, tapering to a sharp point and exceedingly pungent when ripe. Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

Long Red Cayenne A well known medium early variety having a slender, twisted and pointed pod about four inches long. Color deep green when fruit is young, bright red when ripe. Extremely strong and pungent flesh. Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

Large Bell, or Bull Nose Our stock of this well known variety, sometimes called Sweet Mountain, is very superior. Plant vigorous, about two feet high, compact and very productive, ripening its crop uniformly and early. The fruits are large, with thick, mild flesh of excellent quality for use in salads and mangoes or stuffed peppers. The color is deep green when fruit is young, bright crimson when ripe. Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.

Ruby King An improved American variety, very large and attractive. The plant is about two and one-half feet high, vigorous, compact and productive. The fruits are often four to four and one-half inches long and of deep green color when young, bright red when ripe. The flesh is thick and mild flavored. One of the best varieties for mangoes or stuffed peppers. Oz. 30c, $\frac{1}{4}$ lb. \$1.00, lb. \$2.75.

Large Sweet Spanish A late maturing and attractive, red, sweet pepper. Plant about two and one-half feet high, upright, very compact, vigorous and productive. Fruits very large and long, frequently seven inches in length and about two inches in diameter, with very thick, mild flesh of excellent quality. Color deep green when fruit is young, rich red when ripe. Oz. 25c, $\frac{1}{4}$ lb. 75c, lb. \$2.50.



Bell or Bull Nose

POTATOES

Irish Cobbler Is the best early white potato grown. The tubers are smooth, round, plump and handsome. The flesh is white and of splendid quality. Per Bu. \$2.00.

True Early Rose The Early Rose is the old standard early potato; rosy blush skin, white flesh; early, productive, and of excellent flavor; a fine keeper. Bu. \$2.00.

Late Russet The famous "Russet" recently introduced from Michigan yielded 393 bushels to the acre on a Tully farm in 1914, many specimens weighing 15 to 20 ounces. Most vigorous grower and an immense yielder. It is bug proof and blight proof. Has a russet skin; flesh white as snow. A fine cooker. The most valuable late sort on the market. Bu. \$2.00. For further particulars see page 15.

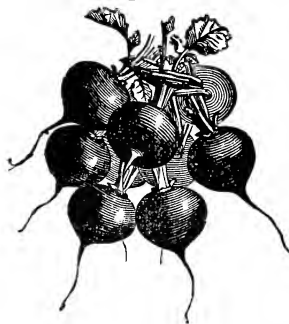
Carman No. 3 Another large, round, white, main crop potato; tubers are very large, eyes are shallow and few in number, and it is an immense yielder of large potatoes. Bu. \$1.50.

PUMPKIN SEEDS

Connecticut Field, per lb. \$.15 Cashaw Pumpkin, fine table, per lb. \$.60
Cheese Pumpkin, fine for table, per lb.50 Mammoth Prize Pie, per lb. 1.00

RADISH, Radischen

Being a root crop, good brittle radishes require light, well-worked soil, made very rich and mellow to insure quick growth. If permitted to grow slowly, they become tough and pithy. They are easy to grow and frequent plantings will insure a constant supply for the table. Summer varieties can be sown all spring and well into summer. Winter varieties, however, require some time to mature, and the seed should be planted in August and September for good radishes in November and December.



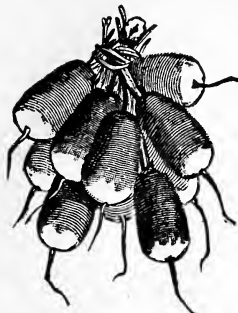
Johnson's Perfection Red White tipped, turnip shaped. This radish is a remarkably attractive variety. The white tip extends nearly half way up the root, and the brilliant color of the top shows up in strong contrast. Excellent for market work. Oz. 10c, lb. 75c.

Early Scarlet Turnip A good, scarlet, turnip-shaped radish. It is of very quick growth, and of a very desirable size, with small tops. Suitable for growing outdoors or for forcing. Oz. 10c, lb. 75c.

Vick's Scarlet Globe This grand radish has established a reputation as a forcing sort. Its peculiarity is that it will bear the heat requisite for forcing without becoming pithy in character or suffering injury to its flavor. Its attractive shape is shown in the illustration. Its color is a rich scarlet. It has a small top and is a high bred radish. Oz. 10c, lb. 75c.

Crimson Giant Forcing A new variety which will be a popular market and home garden variety, since it matures very early and remains firm and crisp much longer than other short varieties. Color, rose carmine with white tip. It is top-shaped. Oz. 10c, lb. 75c.

Deep Scarlet Turnip
Radish Small Top—New



French Breakfast



Chinese Rose Winter

Chinese White Winter, or Celestial (or Cal. Mammoth White Winter.) The well-known and popular winter variety. Clear white, about four inches long and half stump-rooted. Keeps firm and crisp until it runs to seed. Is a good cooking variety, and when cooked the flavor resembles turnip. Oz. 10c, lb. 75c.

Chinese Rose Winter A bright scarlet winter variety. About four inches long and stump-rooted. Matures two or three weeks earlier than the Chinese White Winter and like it is firm and crisp and does not grow pithy until it runs to seed. Oz. 10c, lb. 75c.

Brightest Long Scarlet A very showy, long variety. Is thick at the shoulder and tapering. Bright rose scarlet with distinct white tip. Oz. 10c, lb. 75c.

French Breakfast A popular variety for market or forcing. It is about two inches long and decidedly stump-rooted. Color, bright rose with bottom of root and the tail pure white. Oz. 10c, lb. 75c.

White Strasburg A white radish, of large size, good quality, and ability to resist severe heat. I always recommend White Strasburg for summer planting. It will grow solid, with good flavor, when others fail. Popular with market gardeners. Oz. 10c, lb. 75c.

Giant Stuttgart This mammoth white radish is the largest of the turnip shaped sorts. It has solid, crisp, pungent flesh, and is highly prized by people demanding a radish of high flavor. Both skin and flesh are pure white. It should be given plenty of space in the row. Oz. 10c, lb. 75c.

Icicle A handsome white variety, about 5 inches long, with sloping top and pointed root. Quick growing, brittle, and mild in flavor. Oz. 10c, lb. 75c.

Early Round Dark Red, or Prussian Globe A bright scarlet turnip-shaped variety. Early, quick growing, and a handsome radish. Oz. 10c, lb. 75c.

Round Black Spanish A winter variety, with black skin and white flesh. It is top-shaped or almost globular. Oz. 10c, lb. 75c.

Black Spanish, Half Long A shorter, olive-shaped variety with half stump-root and sloping top. Oz. 10c, lb. 75c.

RHUBARB

CULTURE.—Plant roots four feet apart each way, in very rich, well manured soil. Cultivate well and top-dress liberally. Plants easily grown from seed. Sow in drills about 18 inches apart, and thin the plants to 12 inches in the drills. Use one ounce to 75 feet of drill.

Victoria A good market sort, with beautiful red stalks. Pkt. 5c, Oz. 15c, 1/4 lb. 40c, lb. \$1.50. Roots, 15c each, 4 for 50c, postpaid. By express or freight, not prepaid, \$5.00 per 100.

SAGE

A hardy, perennial shrub, with whitish-green, oval, and very much wrinkled leaves, which have a pleasant smell and which are used for seasoning. It is easily grown and the seed can be sown almost any time. Its fragrant, purplish flowers are especially attractive to bees, and the finest white honey has its source in sage blossoms. Oz. 25c, lb. \$1.75.

SALSIFY, or VEGETABLE OYSTER

CULTURE.—Sow early and deeper than parsnip, otherwise culture is the same and, like that, roots, if desired, may be left in the ground through the winter, but should be dug very early in the spring, as they deteriorate rapidly after growth commences.

Mammoth Sandwich Island Larger, of stronger growth, and less liable to grow prongy than the old Long White. Pkt. 5c, Oz. 15c, 2 Ozs. 25c, 1/4 lb. 30c, lb. \$1.00.

SPINACH

An easily grown plant, the seed of which may be planted in the fall to secure good spinach early in the spring or even throughout the winter. The better and richer the soil, the larger and more tender the leaves will be. As a field crop for the market garden, use 8 pounds of seed per acre. For the home garden use one-half ounce for 100 feet of row.

Bloomsdale Savoy The variety most generally used in the East, and especially throughout the South for shipping. Leaves large, round and thick, very much savoyed and rich deep green. One of the earliest varieties. Seed round. Oz. 10c, lb. 25c.



LONG SEASON SPINACH.

Long Standing A deep green variety with rather elongated smooth leaves. Seed, round. Stands a long time without running to seed. Oz. 10c, lb. 25c.

Victoria A long-standing variety with round, slightly savoyed leaves. Deep green and hardy. Forms good, edible leaves early and continues to produce leaves for a long period. Oz. 10c, lb. 25c.

Norfolk Savoy Forms a dense rosette of thick, tender and succulent crumpled or blistered leaves of dark green color. With this variety spinach may be continuously grown in any home garden. The best variety to be sown in the spring and at intervals for a successional summer supply. It is invaluable to both home and market gardeners. Oz. 10c, lb. 25c.

Prickly The variety commonly used for market in California. Is very hardy and easily grown; bears large, smooth leaves, which are shaped like an arrow point. Color, bright green. Seed irregular with three or four sharp points. Oz. 10c, lb. 25c.

New Zealand A plant with thick, fleshy texture and soft crystalline leaves, same way. Oz. 10c, lb. \$1.00.

Round, Thick Leaved A large-leaved, bright green variety. Leaves rather smooth and rounded at the top. A good variety for late spring and summer. Seed round. Oz. 10c, lb. 25c.

SQUASH, Kurbis

The summer varieties come into use early in the summer, but being sensitive to frost the seed cannot be sown until late in April. The seed should be planted in hills four feet apart, using four ounces to 100 hills. The winter varieties are also unable to resist frost, and should be planted at the same time. The fruit does not mature until late in the fall, and, having a very firm, hard shell, keeps well, and with a little care squashes can be had all winter and until late in the spring. In gathering winter squashes, it is important to protect the stems, since if broken off the fruit will not keep so well. Plant in hills six to eight feet apart, using two or three seeds to the hill. Use eight ounces to 100 hills, or two pounds to an acre. Moderately rich soil will grow good squashes.

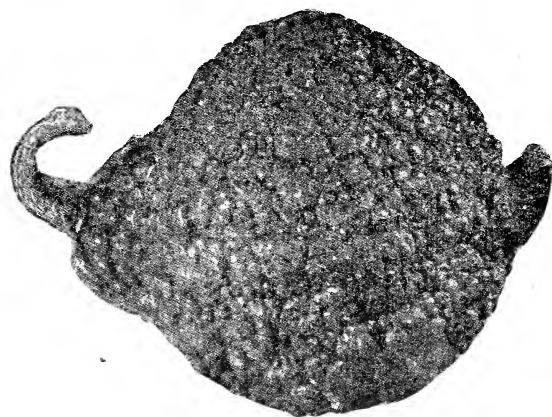
Mammoth Summer Crookneck A large golden-yellow variety, thickly warted; is eighteen inches long, brittle and tender. Plants are bush and very prolific. This is an improved strain of the old variety and considerably larger. Oz. 10c, lb. 75c.

Burpee's Fordhook Squash A most desirable running variety for both summer and winter use. The vines are of strong, vigorous growth and wonderfully productive. Fruits oblong in form, eight to ten inches in length, slightly ridged, smooth thin yellowish skin; flesh very thick and of a light straw yellow. If gathered young for cooking, no other squash approaches it in flavor, while if allowed to ripen on the vine they can be stored and will keep in excellent condition until late the following June. Either for baking like sweet potatoes or making pies during the winter the quality is unsurpassed. Oz. 15c, lb. \$1.40.

Burpee's Bush Fordhook Squash Being of "bush growth," the plants can be grown much more closely together. The fruits are rather shorter and thicker than those of the running type; they are also thicker fleshed and have a smaller seed cavity, but unfortunately do not come as true to type. Our Fordhook squash is about a week later than the Early White Bush; it is much sweeter and better flavored. Oz. 15c, lb. \$1.40.

The Faxon A very desirable variety for the home garden, very productive, of medium size (five or six pounds), fine-grained, dry, sweet, a good keeper, uniform in shape, but varied in color. This variation in color is a distinct feature of the squash. Oz. 10c, lb. \$1.00.

Mammoth White Bush Scallop An improvement on the old variety, larger, pure white and superior in quality. Oz. 10c, lb. 75c.



Hubbard Squash

In color, the flesh dry and sweet in flavor. It grows to large size, is a fine keeper and shipper, its cooking qualities unsurpassed. Oz. 15c, lb. 75c.

Mammoth Chili The largest variety, attaining under special cultivation enormous size. Oz. 20c, lb. \$1.00.

Boston Marrow This grows larger than either of the preceding, but is not of so deep color; skin thin, yellow, with pinkish tint; desirable for pies, not so dry as the Hubbard. Oz. 10c, lb. 75c.

Delicious One of the thickest meated and very best in quality, not excepting Hubbard. Although at any time excellent, does not acquire its best quality until winter. Oz. 15c, lb. \$1.00.

Golden Hubbard A distinct sort, of the shape and general character of the Hubbard, but a little smaller, earlier to mature, and a rich orange-red instead of the dark olive-green of the old Hubbard, while the flesh, which is thick, is a little deeper colored, of fully as good quality, fine-grained and dry. Oz. 10c, lb. \$1.00.

Warted Hubbard This is a distinct strain of the famous Hubbard and is an ideal winter squash for marketmen. The shell is deeply warted and a dark green

SWISS CHARD

Giant Perpetual ("Cut-and-Come-Again") Spinach Swiss Chard This, though a variety of Chard, is to all practical purposes a giant spinach, the huge curled leaves being tender and cooking readily, with a decided spinach flavor. Its great merit is that it will supply the greens from spring until late in the fall. The large mid-ribs can be cooked and served like asparagus. If wanted for greens cut when 6 inches high just above ground and it will grow out again. Oz. 10c, lb. \$1.00.

SWEET HERBS

CULTURE.—Sow in early spring, at the time when the trees begin to leaf, in ordinarily good and well drained garden soil, in rows 12 to 24 inches apart. Cover seed lightly. Thin or transplant to stand 6 to 12 inches apart in the rows. Cultivate frequently and keep free from weeds.

	Packet
Anise, seeds aromatic.....	5c
Balm, has medicinal qualities.....	5c
Basil, sweet.....	5c
Borage, leaves used for salad.....	5c
Caraway, seeds aromatic.....	5c
Chives, Edible.....	5c
Coriander, seeds aromatic.....	5c
Dill, seeds aromatic and medicinal.....	5c
Fennel Sweet, seeds aromatic.....	5c
Horehound.....	5c
Lavender, leaves aromatic.....	5c

	Packet
Marjoram, leaves used in seasoning.....	5c
Mint (peppermint).....	5c
Rosemary, aromatic.....	5c
Rue, medicinal qualities.....	5c
Saffron, medicinal qualities, also dyeing.....	5c
Sorrel.....	5c
Sage, culinary herb.....	5c
Savory Summer, culinary herb.....	5c
Tarragon or Estragon (roots).....	5c
Thyme, culinary herb.....	5c
Wormwood, medicinal qualities.....	5c

TOBACCO SEED

Havana Tobacco Seed, per oz. 75c, per pkt. 10c.

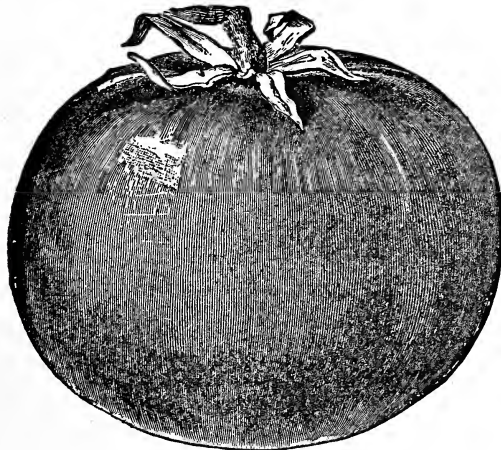
TOMATO, Liebesapfel

As tomatoes are very sensitive to frost, they cannot be set in the open field until about May 1st. The seed must be sown in well protected hotbeds, sowing same about March 1st. A hardy and stocky plant is had by transplanting the small plants in the bed a few weeks before transplanting to the field. Or when about four inches high, the top may be pinched off and the plant grows stockier.

Sow the seed broadcast, using one ounce to about three square feet of area, which will yield plants enough to set an acre. In the field set tall varieties six feet apart and dwarf varieties three feet apart. A slight trellis is advisable in the garden. A moderate amount of water should be applied at the roots at regular intervals.

Bonney's Best Early

An extra early variety having great favor with the market gardeners. Vines vigorous and productive, fruit solid without hard core. Color bright scarlet. Fine, early, handsome, especially profitable for market gardeners' use. Oz. 35c, lb. \$3.50.



June Pink The June Pink tomato in habit of growth is similar to the Earliana. The plant is compact, branching freely, with fruit hanging in clusters of six to ten fruits, both in the crown and at the forks of the branches. It ripens fully as early as the Sparks Earliana and quite ten days to two weeks ahead of Chalk's Early Jewel. Fruit of medium size, uniform, smooth, and attractively shaped, without cracks or any green core. Continues to bear and ripen fruit until frost. Oz. 35c, lb. \$3.50.

Chalk's Early Jewel

A wonderful new variety, in that it is early and bears continuously throughout the season. The fruit is large, smooth, uniform, and well ripened clear to the stem, and the flavor and quality are especially fine. Color, bright scarlet. Oz. 25c, lb. \$2.75.

Earliana (Sparks)

The earliest tall variety, forming ripe fruit much earlier than any other variety. The fruit is large, smooth, of a bright scarlet color, and of fine quality. Very valuable for early market use. Pkt. 10c, lb. \$2.75.

Beauty

A rather early, tall variety; very prolific, with good-sized, smooth fruit of a purplish-carmine color. Oz. 25c, lb. \$2.25.

Livingston's Dwarf Stone

Another splendid new variety from Livingston. This is what he says of it: "The same sort of tomato as Dwarf Champion, but the vine is of stronger growth, and the fruit is of double the size. It is equally early, is equally prolific. The shape of the fruit is perfect. It is very solid, ripens very evenly and is of excellent quality. Oz. 35c, lb. \$2.50.

Dwarf Champion

A dwarf variety, sometimes called the tree tomato on account of its upright growth and its ability to stand alone without trellising. Fruit medium-sized, smooth, uniform, and of a purplish carmine color. Oz. 25c, lb. \$2.50.

Matchless

A tall-growing, prolific variety with large fruit, which is rather flattened, smooth and uniform. Color, bright scarlet. For canning and general main crop market, there is no better tomato grown. Extra selected strain. Oz. 40c, lb. \$3.00.

Ponderosa

An extremely large, irregular-fruited variety. Vine tall, and fruit very solid and purplish-carmine in color. Rather coarse and of fair quality only. Oz. 40c, lb. \$3.50.

Red Cherry

The fruit is small and globe-shaped, about one to two inches in diameter. It is very valuable for preserving. Oz. 25c, lb. \$2.50.

Red Pear Shaped

As the name implies, the fruit is shaped like a pear—small at the stem and enlarged at the top. It is small, being about two or three inches long. It is bright scarlet. Oz. 25c, lb. \$2.50.

Golden Queen

(Bright yellow.) Best large yellow tomato. Much like Paragon, except in color. Always smooth and ripens early. Quality excellent in all respects, either for slicing or preserving. Queen of all the yellows. Oz. 35c, lb. \$3.00.

Pear-Shaped Yellow

(Bright yellow.) A pretty tomato, similar to Pear-Shaped Red, except in color. Oz. 30c, lb. \$3.00.

TURNIPS, Steckrube

While turnips are a favorite fall and winter vegetable, they may also be had in the spring by proper sowings. They are of easy culture, but need well-worked, rich soil to insure a quick, uninterrupted growth, when they will be tender and free from woodiness.

For fall and winter use sow the seed in August, in rows 10 to 18 inches apart, using one ounce to 250 feet of row, thinning the plants when very young to three or four inches apart. For spring use sow in January. For field culture sow in rows about two feet apart, using one to three pounds of seed per acre.

Early Snowball A medium globe-shaped variety of pure white. Very solid and of the best quality. Oz. 10c, lb. 75c.

Early White Flat Dutch (Strap Leaf) A medium-sized, flat variety; clear white, early, and of fine flavor. Oz. 10c, lb. 75c.

Early White Milan Roots flat, smooth and symmetrical; pure white. Top very small, upright and compact, permitting close planting. The earliest and much the best of any extra-early white variety. Oz. 10c, lb. 75c.

Early Purple-Top Milan Differs from the preceding in that the roots are not quite so thick and are purple on top. Oz. 10c, lb. 75c.

Early Purple-Top Flat A well-known variety and very extensively grown. Roots smooth, white, with the upper portion purplish red. Oz. 10c, lb. 60c.

Early Purple-Top White Globe One of the handsomest varieties, the upper portion of the root being a purplish red, the lower pure white. A rapid grower, attaining a marketable size sooner than other large globular varieties. Of the best quality and an excellent keeper. Owing to its strong growth should be more severely thinned than other early varieties. We offer New England grown seed of a selected strain, which repeated trials have shown to be much superior to those generally offered. Oz. 10c, lb. 60c.

Cow Horn A long white turnip. Grows to a large size, standing half out of the ground. It is fine flavored and desirable. Cow Horn turnip sown in connection with Rape is one of the newly recommended things for green manuring purposes. Oz. 10c, lb. 50c.

Ruta-bagas or Swedish Turnips

Laing's Improved Swede One of the earliest; handsome round variety; fine for the table. Oz. 10c, lb. 50c.

Sweet German, or Russian White, sweet, excellent; a first-rate keeper. Oz. 10c, lb. 50c.

Carter's Imperial Swede This is the best of the Swede turnips. Oz. 10c, lb. 50c.

American Purple-Top Very hardy and productive; flesh yellow, solid, sweet; good for stock or table use. Oz. 10c, lb. 50c.

Long Island Improved Bred from the "American Purple Top," over which it is a great improvement, being nearly double the size; an immense yielder and good keeper; flesh rich yellow, of fine quality. Oz. 10c, lb. 50c.



Ruta Baga American Purple Top Turnip

HOME MIXING OF FERTILIZERS

Is the Most Practical, Efficient and Economical Method

It means a saving of \$6.00 or more a ton.

The sources of Plant Food are the best and most available.

No inferior sources of ammonia are used.

You are paying for no useless filler and the freight, bagging, handling and cost of distributing it.

It means better results. You can adapt your formula to suit your particular soil and crop.

Experiments prove superiority of Home Mixtures over factory mixed goods.

Every Experiment Station, Department of Agriculture, Institute Lecturer, Farmers' Grange, and Agricultural College, advocates the purchase of materials and home mixing of fertilizers.

Every fertilizer manufacturer opposes the Home Mixing of fertilizer because when the practice becomes general it will mean the destruction of his business.

We instruct you how to mix your goods and the number of pounds of each material to make goods of any analysis.

Write for prices, formula tables and booklets telling How and Why.

We offer materials for Home Mixing. Ask for prices.

GARDENERS, ATTENTION

We call your special attention to our complete line of Iron Age Cultivating Tools, Spraying Tools, Planters and Potato Machinery. Also Insecticides, all of which are illustrated with prices on pages 47 to 58.

SELECT FLOWER SEEDS.

- Abobra** (Gourds) Beautiful variety of climbing gourd with elegant foliage. 5c pkt.
- Abronia** (Sand Verbena) Trailing, annual, sweet-scented clusters like verbena, lasting in bloom a long time; for rock-work or hanging-baskets. Height 12 inches. 5c pkt.
- Abutilon** (Chinese bell flower or flowering maple) Free flowering, perennial shrub; fine for in doors. For outdoor sow before April. Will bloom first season. 10c pkt.
- Acacia** Half hardy shrub having ornamental foliage, beautiful shades of yellow, globular flowers. Soak seed in warm water before sowing. Height 6 to 10 ft. Mixed 10c pkt.
- Aconitum** (Monk's hood or Wolfs bane) Hardy, perennial, long spikes of odd shape blue and white flowers, adapted to shady corners or among shrubbery; 3 to 5 ft. 5c pkt.
- Acroclinium** Pretty, annual everlasting, 15 inches high, lovely white or rosy pink flowers fine for border. Sgl. or dbl. 5c pkt.
- Adlumia** Hardy white perennial, 2ft. high, pure white double flowers, bloom from spring until frost, fine for cemetery decoration. Flowers first season if sown early.
- Adlumia** (Mountain fringe or Allegheny Vine) A hardy biennial climber, will resow itself year after year, feathery foliage resembling Maiden-hair Fern, flowers tube-shaped, flesh colored completely covering the plant, fine for trellises, stumps, etc. 10c pkt.
- Adonis** (Pheasant's eye) Flos Adonis, Showy, hardy, annual, of easy culture, fine cut foliage blooms a long time; dark crimson flower with light center. Height 1 ft. 5c pkt.
- Ageratum** (Floss Flower) Fine bedding sort, literally a sheet of bloom from early summer until frost; not liable to be spoiled by rain, flowers not liable to fade; easily raised from seed Sow in March or in hot-bed and transfer into open ground in June when weather is suitable valuable for winter flowering for conservatory. 5c pkt.
- Blue Perfection** Dark blue, largest flowering, fine bedder. 10c pkt.
- Cope's Pet** Azure blue, fine light blue sort for edging. 10c pkt.
- Dwarf Princess Pauline** Beautiful, compact, sky blue, white center, very exquisite 10c pkt.
- Mexicanum** Lavender blue, 1 1-2 ft. 5c pkt.
- Imperial Dwarf White** Height 8 inches. 5c pkt.
- Agrostemma** (Rose of Heaven) Free blooming, hardy, perennial, blooming first season, height 1 to 2 ft. Mixed 5c pkt.
- Alyssum** (Mad-wort) Pretty little plants for beds, vases, baskets, edging, etc. Bloom profusely all summer, also useful for winter. Very sweet-scented.
- Little Gem** (or Carpet of Snow) 4 to 6 inches in height, each plant covering a circle of 15 to 30 inches. 5c pkt.
- Sweet Alyssum** Trailing flowers, white. 5c pkt.
- Tom Thumb** Compact, dwarf, fine for edging, white. 5c pkt. 30c oz.
- Saxatile Compactum** (Basket of Gold,) handsome yellow flowers, hardy perennial, blooming first season, fine for rock work, 1 ft. 5c pkt. 30c oz.
- Amaranthus** Brilliant foliaged annuals, 3 to 5 ft. Useful in borders or centers of large beds Do not plant too closely.
- Brilliant** Foliage bright red, ends of branches carmine-rose, red and yellow. 10c pkt.
- Caudatus** (Love lies Bleeding) Blood red, drooping foliage, 3 ft. 5c pkt.
- Salicifolius** (Fountain Plant) Pyramidal, drooping habit. 5c pkt.
- Sunrise** Bronzy Crimson to brilliant scarlet. Fine for parks and large beds, 3ft. 10c pkt.
- Sulphurine** Leaves dark green, bright sulphur yellow. 10c pkt.
- Tricolor** (Joseph's Coat) Leaves red, yellow and green, 3 ft. 5c pkt. 30c oz.
- Ammobium** (Winged Everlasting) Grandiflorum, Pretty Border, annual ever-lasting, flowers white with yellow disc. 5c pkt.
- Ampelopsis** (Boston or Japanese Ivy) Hardy, perennial climber, olive green leaves turning to scarlet in fall. Popular climber, fine for brick or stone walls. 10c pkt.
- Anemone** (Windflower) Hardy, perennial, large flowers, fine for bouquets. Mixed colors. 10c pkt.
- Antirrhinum** (Snap Dragon) White, yellow, scarlet, each 10c pkt. mixed colors. 10c pkt.
- Aquilegia** (Columbine) Charming, hardy, perennial, 1 to 3 ft., profuse bloomer, blue, white, rose, yellow, purple, striped, etc. Fine for borders. Sgl. mixed 5c pkt. Dbl. mixed 5c pkt.
- Arabis** (Rock Cress) Alpina very early, pure white, spring flower, appear as soon as snow disappears. Fine for rockeries or edging. 6 inches high. 10c pkt.
- Arctotis** Grandis, Beautiful new annual, 2 to 3 ft. high, large strong pure white flower embellished with yellow center, of the easiest culture. 10c pkt.
- Aristolochia Siphon** (Dutchman's Pipe) A quick growing climber with large heart shaped leaves. 5c pkt.
- Armeria** (Sea pink or cushion pink) Very pretty edging plant, bearing large tufts with rosy pink flowers, hardy perennial. 10c pkt.
- Asparagus** Plumosus Nanus Graceful climber, finer than most delicate ferns. Will last for weeks after being cut, easily cultivated. 25c pkt.
- Sprengeri** One of the best for hanging baskets or general purposes, fronds 4 ft. long. 10c pkt.
- Verticillatus** Graceful, hardy perennial climber, scarlet berries. 10c pkt.
- Asperula Odorata** (Sweet Woodruff) Fragrant leaves and stems, grown in shaded places white flowers. 5c pkt.
- Asters** are now one of the most important summer and autumn flowers. Their immense popularity and world-wide demand shows their adaptability to any soil or climate, there being early medium and late flowering sort which extends the blooming period from early July until frost. For the best results the ground should be very rich. Good results can be obtained from ordinary garden soil.
- Branching Varieties** 1 1-2 ft. high., very double, beautifully incurved. Crimson 10c, blue 10c, pink 10c, white 10c, rose 10c, mixed 10c.

Asters (Continued).

- Branching Paeony Flowered** In vigor of growth, size of bloom and other qualities this type is unequalled. Height about 18 inches, free branching habit with long stems. Crimson 10c, blue 10c, white 10c, mixed 10c.
- Comet** Beautiful with long curled petals resembling the Japanese Chrysanthemum, height 18 inches. Carmine 10c, pink 10c, blue 10c, mixed 10c.
- Giant Comet** Similar to the above but of stronger growth, 18 to 24 inches high. Pure white 10c, white and rose 10c.
- Giant Branching Comet** Very strong growth, 18 inches high, branching habit, flowers of large size on long stems. 10c pkt.
- Queen of the Market** The earliest flowering Aster, blooms three weeks in advance of the general run, flowers good size on long stems. Fine for cutting. Crimson 10c, pink 10c, purple 10c, white 10c, mixed 10c.
- Victoria** Magnificent bedding or cutting variety, flowers large beautifully imbricated, 1 1-2 ft. high. Scarlet 10c, purple 10c, blue 10c, pink 10c, white 10c.
- China Mixed** Very fine, all colors 5c.
- Quilled Aster** Double or quilled petals, fine for bouquets. 2 ft. 5c pkt.
- Crown or Cocardeau** Very showy, double white center, mixed colors, 1 1-2 ft. high 10c pkt.
- Daybreak** Grand variety of symmetrical growth and habit. 18 inches high, globe shaped, double, delicate, pink tint. 15c pkt.
- Dwarf Chrysanthemum** Large flowering, dwarf, double, excellent for plants and pots. Mixed 10c pkt.
- Fire-Ball** Magnificent, double, brilliant, deep scarlet 10c.
- Japanese or Tassel** Entirely distinct, new pyramidal shape, 18 inches high, long stems, flowers five inches across, wavy twisted, needle shaped petals, very graceful. Mixed 10c pkt.
- Ostrich Feather** Magnificent, resembling the Comet, flowers of immense size of loosely formed petals, equaling the best Japanese Chrysanthemums. White or pink 15c each.
- Rose flowered** Large double, pyramidal, height 2 ft. Mixed colors 10c.
- Snow Ball** A beautiful distinct sort, short petals, pure white 10c.
- Washington** Splendid, very large, double, diameter 6 inches. White 15c.
- Perennial** Single, hardy. Does well in any garden soil. If sown early will flower in early season. 10c pkt.
- Bachelor's Buttons** (See Globe Amaranth).
- Balloon Vine** (Love-in-a-Puff) Rapid growing annual climber, white flowers, seed vessels look like miniature balloons. 5c pkt.
- Balsams** (Lady Slipper) Double, camellia flowered type, and old favorite, gorgeous brilliant colored, double flowers in great profusion, easily cultivated, 2 ft. high.
- Prince Bismarck** Salmon, pink, double, 10c pkt. Scarlet, yellow, violet and mixed each 5c. White 10c.
- Baptisia** (False Indigo) Beautiful, hardy, perennial, pea-shaped flowers on spikes 6 inches long, bright blue 2 1-2 ft. 5c pkt.
- Bartonia** Showy yellow flowers, very brilliant, cannot be transplanted. 5c pkt.
- Begonias** Fine bedding variety, equal to geraniums, sturdy growth, 1 ft. high, forming dense bushes completely covered with flowers from May until frost. Unequalled as pot-plants for winter flowering and will remain in bloom the entire year. Easily raised from seed. Double mixed 25c, single mixed 15c.
- Tuberous Rooted Begonias** Plants of great value for summer decoration or window gardening, bloom first season from seed if sown in February, transplanted as soon as weather permits, produce flowers the entire summer. Double mixed 25c, single mixed 25c.
- Ornamental Leaved Begonias** Beautiful, variegated foliage. Mixed 25c.
- Bellis** Double Daisy, very handsome spring-flowering plant. 5 pkt.
- Brachycome** (or Swan River Daisy) Dwarf, annual, profuse bloomer, pretty blue or white flowers. 5c pkt.
- Calceolaria** (Lady's Slipper) Ornamental plant with mass of beautiful pocket-like flowers, blooms early and very fine for decorating green-house or conservatory.
- Hybrida Grandiflora**, 20 inches high. Mixed, 25c.
- Tigrida** Large tiger spotted brilliant colors 25c.
- Calendula** (Pot Marigold) Very showy, free-flowering until frost, hardy annual, grows in any good soil, fine for beds or mixed borders, fine for pot culture, height 1 ft.
- Meteor** Large double yellow, striped with orange 5c.
- Orange King** Large double orange red flowers 5c.
- Pure Gold** Fine Golden Yellow 5c.
- Mixed** per pkt. 5c.
- Pluvialis** (Cape Marigold) White daisy-like flowers, under side of petals lilac, 5c
- Calliopsis** (See Coreopsis) Showy, free-flowering annual, blooms all summer, fine for cutting and massing. 5c pkt.
- Coronata** Large yellow, fine for bedding 5c.
- Golden Wave** (Drummondii) Large golden yellow with brown center, fine for borders. 5c.
- Tinctoria** Golden with garnet eye 5c.
- Nigra Speciosa** Crimson 5c.
- Campanula** (Bellflower) Favorite, hardy herbaceous with great profusion of bell flowers, thrives in light rich soil.
- Carpatica** Blue and white mixed, bloom the whole season, 6 inches 5c.
- Persicifolia Grandiflora** Fine hardy bell flowers 2 to 3 ft. blue or white. Mixed 10c.
- Canary-Bird Vine** (Tropæolum Canariense) Handsome annual, rapid climber, charming little canary-colored blossoms bearing a fancied resemblance to a bird with wings half expanded 5c.
- Candytuft** (Iberis) A great favorite, fine for cutting, looks best in beds or masses. Sow in spring, will bloom until frost, very hardy, easily cultivated. Single plants look well and bloom profusely, 1 ft.
- Carmine** 5c.
- White** 5c.

Candytuft (Continued)**Crimson** 5c.**Empress** A complete mass of pure white flowers 10c.**White Rocket** 5c.**Lavender** 5c.**Mixed colors** 5c.**Perennial mixed** 10c.**Canna** (Indian Shot) Without exception one of the handsomest bedding plants. Soak the seeds in warm water until they show evidence of swelling. When the second leaf is out pot singly and keep under glass until proper season for planting out. Mixed colors 10c.**Canterbury Bell** (Campanula Media) Sgl. mixed 5c. Dbl. mixed 5c.**Cup and Saucer** (Calycanthemum) Fine white, blue and rose, resembling cup and saucer. 5c.**Carnation** (See Dianthus) Great favorite for their delicious fragrance and richness of color indispensable for winter or summer culture. Dbl. mixed. 10c.**Marguerite Carnations** Very popular, as they begin flowering a few weeks from time of sowing, half-dwarf, strong, requiring no support, produce long, strong stems, abundant large double, beautifully fringed, highly-scented flowers.**Mixed colors** 10c.**Caster Oil Bean** (See Ricinus).**Celosia or Cristata** or Cockscomb Varieties Free-blooming annuals, plant in light soil not too rich, grand for border and fine for pots.**Empress** Combs of Colossal size, known to measure 45 inches from tip to tip; rich crimson 10c.**Glasgow Prize** Dark Crimson 10c.**Dwarf** 8 inches high, sometimes measure 2 ft. across 10c.**Mixed Dwarf** 5c.**Centaurea** Under this name is included the popular annuals like Corn Flower, Blue Bottle Ragged Sailor, Sweet Sultans, etc. Great favorites, fine for cut flowers; white-leaved sorts, or Dusty Millers are largely used for bedding, vases, etc.**Sweet Sultans** (Centaurea Imperialis) Beautiful, sweet-scented, strong stems, when cut will stand for several days in good condition of easy culture. Mixed colors 10c. Named colors 10c.**Giant Sweet Sultans** (Centaurea Oderata) or Giant Cornflowers, easy to cultivate flowers 2 to 4 inches in diameter, very graceful, sweet-scented.**Chameleon** Pale yellow turning to a beautiful rose 10c.**Oderata** Reddish lavender, very fragrant 10c.**Margaritæ** White 10c.**Cheiranthus** (See Wall Flower) Mixed 5c pkt.**Chrysanthemums** Annual sorts, showy, effective garden favorites. Dbl. mixed 10c pkt. sgl. mixed 10c pkt.**Cineraria** Seed may be sown from May to September in succession. Where only one sowing is made July should be preferred. Cinerarias grow so freely that the seedling may go straight from seed-pans to thumb-pots. For transplanting, plant in a cold frame facing north, if possible. When pots become full of roots shift into larger ones until the flowering size is reached.**Dwarf Mixed** 25c per pkt.**Tall Mixed** 25c per pkt.**Double Flowering** 25c per pkt.**Stellata** (Star Cineraria) A charming variety with large spreading panicles of starry flowers. Same colors as the common Cineraria. The grace and elegance of the plant and flowers make them very effective for house or conservatory decoration; especially fine for church decoration and very useful for cutting. 35c.**Cineraria** (White Leaved Sorts)**Dusty Miller** Fine for bedding and margins, valued for their beautiful, downy, silvery foliage, half hardy perennial; 2 ft.**Maritima Candidissima** Silvery foliage 5c pkt.**Acanthifolia** Silvery foliage 10c pkt.**Clematis** Rapid-growing climber, fine for arbors and verandas. Seeds are slow to germinate, and should be soaked in warm water 24 hours; hardy perennial mixed colors. 10c pkt.**Clianthus** (Australian Glory Pea) Beautiful, tender, perennial shrub with clusters of brilliant pea-shaped flowers, 3 inches in length, with large black blotch for center. 10c pkt.**Cobæa** (Cups and Saucers Vine) A rapid climber, fine for trellises, arbors, etc., clings to any rough surface. Place seeds in the ground edgewise and cover with light soil.**Purple** 10c pkt. pure white. 10c pkt.**Coccinea Indica** (Scarlet-fruited Ivy-leaved Climber) Handsome, annual, gourd species with beautiful glossy ivy-like leaves, contrasting with the fine snow white bell-shaped flowers and bright carmine fruit. 10c pkt.**Coleus** (Flame Nettle) An attractive foliage plant for house or garden, very interesting to grow from seed, easily raised; sow in March or April. 10c pkt.**Convolvulus** (Morning glory) Climbing varieties, very popular and one of the most free-flowering, rapid-growing plants in cultivation; doing well in almost any situation, with beautiful brilliant flowers; annuals, 15 ft. Mixed colors 15c oz. 5c pkt. Dwarf per oz. 15c. 5c pkt.**Coreopsis** (See Calliopsis) A very fine hardy plant with large, showy bright, yellow flowers, produced in great abundance from June until frost, especially fine for cut flowers having long stems and lasting in good condition a week or more. These grow from seed, flowering the first year if sown early. 5c pkt.**Cosmos** Beautiful autumn-blooming plant, producing thousands of beautiful flowers in pure white, pink and crimson shades; fine for autumn decoration when other flowers are scarce. Sow in spring in open ground when danger of frost is over, or may be started under cover and transplanted. Set about 18 inches apart in rows or in masses in beds. When about a ft. high pinch the tops out to induce a bushy growth., 2 1-2 to 4 ft. in height.**Crimson**, 5c.**Pink** 5c.**White** 5c.

Cosmos (Continued)**Mixed** 5c pkt.**Dwarf** 5c pkt.**Cucurbita** (See Ornamental Gourd)**Cyclamen** Charming plant with richly colored foliage, fragrant flowers. Great favorites for winter or spring. Sow in spring or autumn.**Persicum** Choicest mixed. 15c pkt.**Pure white, dark red, rose** each 25c pkt.**Cyperus** (Umbrella Plant)**Alterdifolius** Excellent for growing in water or damp places. Very ornamental house plant. 10c.**Cypress Vine** (Ipomaea Quamoelit) A favorite summer climbing annual, with feathery foliage and star-shaped flowers borne in clusters.**White** 5c pkt.**Scarlet** 5c pkt.**Rose** 5c pkt.**Mixed colors** 5c pkt.**Dahlia** One of the best late summer and autumn flowering sorts, very popular. The double sorts will bloom first season if sown early. Single will bloom first season if sown in the open ground. Many prefer the single sorts to Cosmos, having the larger variety of colors and longer season of bloom.**Double, finest mixed** 10c.**Single, finest mixed** 10c.**Single Tom Thumb, dwarf, 1 ft.** 10c.**Datura** (Trumpet Flower) Ornamental annuals, large showy flowers; 2 to 3 ft. Dbl. and sg. 10c pkt.**Delphinium** (Perennial Larkspur) One of the handsomest hardy perennials, splendid flowers and curiously cut leaves; for permanent beds and borders they are indispensable.**Zalil** (Hardy Yellow Larkspur) Produces very long spikes of 40 to 50 sulphur yellow blossoms each 1 inch in diameter; flowers from June to August, plant thrifty and bushy; 3 to 4 ft. 10c pkt.**Formosum** Popular for groups, tall spikes of dark blue flowers with white eyes; 2 to 3 ft. 5c pkt.**Nudicaule** Large scarlet flower; 1 1-2 ft. 10c pkt. **Mixed finest single** 5c pkt. mixed 10c pkt.**Dianthus or Pinks** A magnificent sort embracing some of the most popular flowers in cultivation, of great variety and brilliancy with profusion of bloom. The sorts classed as annuals may be sown out-of-doors when danger of frost is past. In a few weeks time they are a mass of bloom continuing until frost; 1 ft.**Double Annuals****Chinensis Fl. Pl.** (China or Indian Pink). Mixed colors 10c.**Heddwigi Fl. Pl.** (Japan Pink) Double mixed 10c.**Snowball** Double white, fringed, very fine 5c pkt.**Imperial Fl. Pl.** (Double Imperial Pink) Mixed 10c.**Salmon King** A double flowering variety, finely fringed flowers of a brilliant salmon color changing as they fade to a salmony-rose; charming for beds or borders. 10c pkt.**Single Annuals** All single sorts have large flowers 2 to 4 inches in diameter, fine for beds or borders; 1 ft. high.**Heddwigi Nobilis** (Royal Pink) Beautifully fringed, colors run from white to dark red 10c.**Heddwigi** (Japan Pink) 10c.**Laciniatus Fl. Pl.** (Double Fringed Pink) Large, double, showy flowers, with fringed edges and beautifully striped; mixed various colors. 5c.**Hardy Garden Pinks** The varieties are well adapted for beds and borders; delightful, refreshing, spicy odor, should be in every garden where cut flowers are wanted.**Semperflorens** (Ever-blooming hardy garden Pinks) Very beautiful, sweet-scented, double, semi-double and single in great diversity of colors, mixed colors. 25c.**Dianthus** (See Carnation) Carnations are general favorites for their delicious fragrance and richness of colors. They are indispensable for the green-house in winter and the garden in summer. The Marguerite is one of the best for summer flowering.**Fine Double Mixed** The best for garden culture 10c pkt.**Marguerite** These are the most popular of carnations with the amateur, as they begin flowering within a few weeks from the time of sowing. Our strain is of semi-dwarf, robust habit requiring no artificial support, and produces on long strong stems an abundance of large double, beautiful fringed, highly scented flowers. Separate colors 10c. Mixed, all colors Marguerite Carnation 10c.**Didiscus** Very pretty annual, blooms profusely from July to November, pale lavender blossoms excellent for cutting. 15c pkt.**Digitalis** (Foxglove) Handsome ornamental hardy perennial plant, easily grown, fine for shrubberies; 3 ft. Mixed colors. 10c pkt.**Dolichos** (Hyacinth Bean) Rapid annual climber with large clusters of handsome flowers producing later in place of flowers, pods of a deep purple, very ornamental, mixed colors. 10c pkt.**Dracaena** (Dragon Plant) Fine ornamental leaved plant. Mixed colors. 25c pkt.**Echinocystis** (Wild Cucumber Vine) Quickest growing vine known, fine for covering trellises, fences, etc. 5c pkt.**English Daisy** (Bellis Perennis) A favorite almost hardy perennial blooms from early spring until late in summer, easily raised from seed, 4 inches high.**Dbl. mixed, finest quality** 10c. Red, white or pink 10c.**Erigeron** (Flea-bane) An attractive, asterlike flower, 1 inch across, purplish-rose with golden center, hardy perennial, blooms first year from May until frost if sown early. 20c pkt.**Eryngium** (Sea Holly) Handsome ornamental, hardy plant 2 to 3 ft. high. Fine for drying for winter bouquets. 15c pkt.**Eschscholtzia** (California Poppy) Fine annual for beds, border or masses, bloom until frost; 1 ft. Sgl. mixed 5c pkt. dbl mixed 5c pkt.

- Euphorbia** Strong, tall-growing annual, attractive foliage. 10c pkt
Forget-me-not (See *Myosotis*) 5c.
Four o'clock or *Mirabilis* 5c.
Fox Glove (See *Digitalis*)
Fuchsia (Lady's Eardrops) Well-known sort of easy culture, for house or garden, mixed colors 25c pkt.
Gaillardia (Blanket Flower) Splendid showy annual, remarkable for profusion, size and brilliancy of flower, bloom until frost, fine for beds, borders or cutting; 1 1-2 ft. Mixed colors annuals 10c pkt. Mixed colors, perennials, 5c pkt.
Geranium (*Pelargonium*) Double mixed, fine color 30c pkt.
Globe Amaranth (*Gomphrena*) Known as Bachelor's Buttons. fine bedding plant, flowers can be dried and be used in winter bouquets; 2 ft. mixed colors. 10c pkt.
Gloxinia A superb greenhouse sort with magnificent rich colored flowers; do best in equal mixture of peat, loam and sand, mixed colors. 25c pkt.
Hodetia An attractive, hardy annual, profuse, showy flowers of varied colors; 1 1-2 ft. Mixed colors. 10c pkt.
Gourds Ornamental (*Cucurbita*) Rapid-growing, annual climbers, ornamental foliage 10c to 20 ft. Mixed colors. 5c pkt.
Grasses, Ornamental These serve the double purpose of rendering mixed flower-beds and borders attractive in summer and for use in a dried state in winter bouquets, for large beds and groups on lawns, nothing gives a finer effect; largely used in public parks.
Arundo Donax (Great Reed) Hardy perennial. 10c.
Briza Maxima Fine for grass bouquets. 5c.
Bromus Brizaeformis Graceful, drooping perennial. 5c.
Coix Lachrymae (Job's Tears) Broad, cornlike leaves, annual. 5c.
Erianthus Ravenae (Hardy Pampas) Beautiful perennial. 5c
Gynierium Argenteum (Pampas Grass) Perennial, blooms the second season. 10c.
Stipa Pennata (Feather Grass) Perennial, beautiful white, delicate begins to bloom second season; 2 ft. 5c.
Gypsophila Pretty, free-flowering plant for rock work, edging, etc. Mixed colors. 5c pkt
Helianthus (See Sunflower)
Helichrysum (Straw Flower) Fine, everlasting double flowers, fine for display; hardy annual 2 ft. Mixed colors. 5c.
Heliotrope (Cherry Pie) Half-hardy perennial, flowering the whole season, very fragrant. Can also be trained as a greenhouse climber. Mixed colors. 10c.
Hibiscus (Marshallow) Showy, perennial plant with large beautiful colored flowers; 1 1-2 ft. Mixed colors. 10c.
Hollyhocks One of the most majestic of hardy plants, so well known that it needs no further description.
 In separate colors. 10c.
 Choice single mixed colors. 10c.
 Choice double mixed. 10c.
Honesty (Moonwort Satin Flower) Hardy biennial, with silvery seed pouches, very attractive 2 ft. 10c.
Humulus (Japanese Hop) Ornamental, fast-growing climber resembling the common hop. 10c
Impatiens (Sultans or Zanzibar Balsam) Charming plant for decorating greenhouse or dinner-table, producing bright, waxy looking flowers. Mixed colors. 25c.
Ipomoea Climbers of very rapid growth, beautiful, varied flowers; for covering walls, arbors, stumps, etc.
Coccinea (Star Ipomoea) Small scarlet flowers 5c.
Bona Nox (Evening Glory) Violet, large fragrant flowers, expanding in the evening. 5c.
Rubra Cœrulea (Heavenly Blue) Bright sky blue. 10c.
Grandiflora (Moon Flower) Blooms at night and on dull days, pure white flowers, 5 to 6 inches in diameter, rapid climber, 10c.
Job's Tears (*Coix Lachrymae*)
Kenilworth Ivy (See *Linaria*)
Kochia Tricophylla or **Burning Bush** 10c pkt
Lady Slipper (See *Calceolaria*)
Lantana One of the most desirable half-hardy perennials, constantly in bloom, verbenaceous heads of orange, white, rose and other colors; 2 to 5 ft. Mixed colors 10c.
Imperial Japanese This variety without question the handsomest of all Morning Glories. Sow in good soil as soon as weather permit, a strong vigorous climber, flowers of gigantic size, remain open most of the day. The colorings are beyond description. Choice mixture 10c
Larkspurs (See *Delphinium*) One of the best known garden flowers, hardy annuals
Dwarf Rocket 1 ft. Mixed colors 10c. Dbl. mixed 10c.
Double Stock Flowered Tall branching sort; 2 ft. 5c.
Lathyrus (Everlasting or Hardy Sweet Pea) Free-flowering hardy perennial climber continually in bloom. Mixed colors. 5c pkt.
Lavender (*Lavandula Vera*) Well-known, sweet-scented, hardy perennial; 3 ft. 5c pkt.
Linaria (Kenilworth Ivy) Charming small, hardy perennial, trailing plant. 10c pkt.
Linum (Scarlet Flax) A very showy bedding plant, brilliant scarlet, excellent bloomer, hardy perennial; 1 ft. 5c pkt.
Lobelia (Cardinal Flower) Popular flowering plant for pots, hanging baskets, etc. Bloom profusely from June to November, hardy perennial.
Crystal Palace Rich deep blue. 10c pkt.
Crimson, white or blue 10c pkt. Mixed colors 5c pkt.
Hardy Perennial Lobelias (Cardinal Flower) Brilliant scarlet; 3ft. 10c pkt.
Lophospermum Beautiful climbing plant, trumpet shaped flower, 10 ft. 10c pkt.
Lupinus Ornamental free-flowering annual, various colored, pea-shaped flowers; 2 ft. 5c pkt.
Lychnis Handsome hardy perennial, easy culture, fine for beds and borders. Mixed colors 10c
Marigold (See *Tagetes* also *Calendula*. French Varieties) An old favorite, free-flowering
Double Yellow 10c pkt.

Marigold (Continued)**Single Yellow** 10c pkt.**Mixed colors** 5c pkt.**African varieties****Double yellow** 10c pkt.**Large African Tall**, double yellow; 2 ft. 5c pkt.**Signata Pumila** A dwarf, compact, bushy annual marigold with beautiful delicate fern-like leaves, densely covered with flowers of bright yellow striped brown; fine border plant. 5c pkt.**Matricaria** (Feverfew) Free-flowering, blooms until frost, hardy annual; 18 inches. Dbl white 10c pkt.**Maurandia** Beautiful, slender-growing climber, half-hardy perennial; 10 ft. Mxd colors 10c.
Mesembryanthemum (Ice Plant) Dwarf trailing plant of great beauty, blooming the whole summer, half-hardy annual; 6 inches. 5c pkt.**Mignonette** (Reseda) A popular favorite, sown in April and again in July, will keep up a succession of bloom until frost; also suitable for pots, very fragrant, (orange) 5c pkt.**Golden Machet** 10c.**Miles** Spiral spike; 8 to 10 inches long, very fragrant. 5c.**Improved red** 5c.**White** Very fragrant. 5c.**Sweet scented** Old popular variety, small spikes, very fragrant. 5c.**Mimosa** (Sensitive Plant) A curious, interesting annual with pinkish-white flowers, leaves close and droop when touched or shaken. 5c pkt.**Mimulus** (Musk Plant) Very showy, profuse-flowering plant, half-hardy perennial, blooms first year if sown early; 1 ft. 5c pkt.**Tigrinus** (Monkey Flower) Spotted variety. 5c.**Moschatus** (Musk Plant) Fine for hanging baskets, small yellow flowers, fragrant foliage. 5c.**Palustris** The true forget-me-not, beautiful blue flower; 6 inches. 10c.**Mirabilis** (See Four o'clock) 5c pkt.**Momordica** Very curious climber, ornamental foliage, fruit golden yellow, opens when ripe showing the seed and its beautiful carmine interior, fine for rock-work, etc., annual 10 ft. 5c.**Morning Glory** (See Convolvulus)**Musa Ensete** (Abyssinian Banana) A splendid plant for open ground, producing a most striking effect when planted singly or in groups, thrives best in hot seasons, growing very large 10 to 20 ft, especially when freely supplied with liquid manure. Seeds germinate easily if started in hot bed; tender perennial. 25c.**Musk Plant** (See Mimulus)**Myosotis** (Forget-me-not) A pretty, small, double, aster-like flower, half-hardy perennial, blooms first year if sown early, bright blue; 6 inches. 5c.**Nasturtiums** (Tropaeolum) For ease of culture, duration of bloom, brilliancy of color and general all around purposes nothing excels this popular variety. Plant in moderately good soil well drained, sunny position, quick growing and bloom profusely until hard frost comes. Tall Climbing Sorts. Crimson 5c, lilac 5c, yellow 5c, white 5c, purple 5c, rose 5c, mixed 5c.**Lobb's Climbing Nasturtiums** Scarlet, white, red. 5c each.**Tom Thumb** No collection of flowers should be without Nasturtiums, they grow so freely and afford such a variety of rich bright colors. As a cut flower there is nothing more effective sweet-scented and pleasing in every way.**Tall** Varieties mixed. 10c oz. 5c pkt.**Dwarf** Varieties mixed. 15c oz. 5c pkt.

Our mixture of Nasturtiums is the finest in the country.

Nasturtium Dwarf Aurora, very fine 5c pkt,

" " Beauty, yellow and scarlet, 5c pkt

" " Bronze, 5c pkt.

" " Cardinal (Dark scarlet) 5c pkt.

" " Cloth of Gold (Light foliage) 5c pkt

" " Crystal Palace dwarf, 5c pkt.

" " Empress of India (Dark leaves) 5c pkt.

" " King of Tom Thumb, 5c pkt.

" " King Theodore, very dark, 5c. pkt.

" " Ruby King, 5c. pkt.

" " Flammulum, Grandiflorum, tall. Scarlet and yellow, extra fine, 5c pkt.

Nicotiana (Tobacco Plant) Delightful, sweet-scented, pure white tubular flower, blooming continuously; annual; 2 to 3 ft. 5c pkt.**Nigella** (Love in a Mist, or Devil in the Bush) A compact, free-flowering plant with curious looking flowers and seed-pods; of easy culture; hardy annual; blue and white mixed; 1 ft. 5c pkt.**Ornamental Grasses** (See Grasses)**Pansies** Are so well known that no description is necessary. Sow early and transplant. Our pansies are imported direct from the grower and are equal to the best that are offered. Fine mixture of leading shades and colors 10c.

Extra choice mixture of best large flowering varieties, 25c

Giant Trimardeau Pansies

Fine mixed 10c.

Cardinal, fine scarlet, very showy 10c.

King of the Blacks 10c.

Golden Yellow 10c

Emperor William 10c.

Light Blue 10c.

Snow Queen 10c

Pure Yellow 10c.

Violas or Tufted Pansies While the Pansy Proper is a spring flower, violas flower throughout the entire season. Seeds sown in spring produce flowering plants by June which bloom until frost. Splendid mixed colors, fine varieties. 10c.

- Passiflora** (Passion Flower) Fine climbing plant for garden or greenhouse with a profusion of attractive flowers; mixed. 10c.
- Pentstemon** (Beard-Tongue) One of the most beautiful attractive herbaceous plants; bearing long graceful spikes of rich colored flowers; if sown early and transplanted in May will bloom in July until frost, half-hardy perennial; 2 ft. mixed colors 10c
- Perilla** Foliage a dark purple, annual; 2 ft. 5c pkt.
- Petunia** For outdoor decoration or house culture few plants equal the Petunia. Commence flowering early and continue a mixture of bloom until killed by frost, easily cultivated, requiring a good soil and sunny position.
Superb double fringed. 50c.
- Double Large Flowering** fine mixture. 25c.
- Single Varieties**
- Ruffled Giant** Very large, in great variety of colors 25c
- Fringed Giant**, Very fine. 35c.
- Snowball** Pure white. 10c.
- Striped and Blotched** Small flowering. 5c.
Fine mixed, all colors. 10c.
- Phlox Drummondii** Of all summer flowering annuals this variety is unquestionably one of the most brilliant and satisfactory. Seed may be sown in open ground after danger of frost is past and in a few weeks the beds or borders are all aglow with their brilliant coloring until cut down by the frost. For early flowering they should be started indoors.
- Phlox Drummondii** Mixed colors. 5c pkt.
White 10c, pink 10c, rose 10c, scarlet 10c, red 10c.
- Dwarf Phlox** This strain of dwarf, compact habit, makes a desirable pot plant, also for ribbon lines and massing; 6 inches high.
Scarlet, white, pink, mixed colors 10c.
- Double Phlox** Especially fine for cut flowers, lasting better than the single sorts. Sow in light soils. Mixed colors 10c.
- Star Phlox** (Star of Quedlinburg) Dwarf, pretty star-shaped flower. Mixed colors 10c
- Hardy Perennial Phlox** All colors, mixed 10c.
- Pinks** (See Dianthus)
- Poppies** An extremely popular brilliant flowering annual. Poppies should be sown where they are to remain, as they will not stand transplanting.
- Single Annual Poppies** Shirley's selected Strain 10c. scarlet 5c. white 5c.
- Blue Poppy** 14 inches high, producing many large tulip-shaped scarlet flowers 10c Single mixed 5c.
- Oriental Poppy** Perennial, exceedingly showy, scarlet with black centre. 10c pkt.
- Double Annual Poppies** Mixed colors 5c.
- Paeony Flowered** Large showy, double mixed colors 5c.
- Portulaca** (Sun Plant) Fine hardy annual, of easy culture, thrives best in rather rich light sandy loam and sunny situation, flowers of richest colors, blooming throughout the summer in great profusion, fine for beds, edging or rockwork; 6 inches. Sgl. mixed 5c. Dbl. mixed 10c.
- Primula** Charming beautiful Chinese Fringed Primrose, fine for winter or spring decorations. One of the most important winter-blooming pot plants, sow from March to May. White 50c pkt. scarlet 50c pkt. pink 50c pkt. crimson yellow eye 25c pkt. mixed colors 25c pkt. Double white 50c pkt. Double mixed 50c pkt.
- Primula** (Oboonica Grandiflora) On single white, slight tinge of lilac. Everblooming. 10c pkt
- Pyrethrum** Handsome herbaceous plants of easy culture so much used for bedding edging etc.
- Aureum** (Golden Feather) Bright yellow foliage, 10c.
Double mixed 25c, single mixed 10c.
- Reseda** (See Mignonette)
- Rhodanthe** (Swan River Everlasting) A charming annual; does well in a light rich soil and warm sheltered situation. Fine for pot culture, flowers everlasting. Mixed colors. 5c.
- Ricinus** (Caster Oil Bean) Ornamental plant of stately growth and picturesque flowers, brilliant colored fruit; fine for lawns or center plants for beds, mixed all colors. 5c.
- Philippiensis** 10 ft. 5c.
- Salpiglossis** (Painted Tongue) One of the greatest favorites among annuals. Partly on account of its easy culture, but mostly for its beautiful, almost orchid-like flowers. Mixed sorts 5c pkt.
- Salvia** (Flowering Sage) A favorite bedding plant, bearing long spikes of flowers in great profusion from July until frost, half-hardy perennial, blooms the first year from seed sown indoors and transplanted when weather permits.
- Splendens** (Scarlet Sage) Beautiful bright scarlet. 10c pkt.
- Patens** (Blue Sage) 5c.
- Scabiosa** (Mourning bride or Sweet Scabious) A very handsome and autumn border plant with great profusion of very double flowers. Splendid for table bouquet; hardy annual; 2 ft. Double mixed. 10c pkt.
- Scarlet Runner Beans** Great favorite of England and continent of Europe, not only as an ornamental climber, but for the delicious edible beans which succeed the bright scarlet blossoms. 5c pkt.
- Schizanthus** (Butterfly or fringe flower) Splendid annual with a profusion of various colored flowers; fine for greenhouse decorations and flower garden, of easy culture. Mixed. 5c pkt.
- Smilax** (Myrsiphyllum Asparagoides) In many respects the Smilax is the most useful, and certainly one of the most graceful climbers; for bouquets and floral decorations it is indispensable. Soak seed in warm water for 12 hours and plant in pots. A tender perennial; white; 10 ft. 10c pkt.
- Solanum** (Jerusalem Cherry) Very useful pot plant for winter decoration, dwarf branching habit, leaves small and oval shaped, bearing in great profusion bright scarlet globular berries 1 ft. 10c pkt.
- Snapdragon** (See Antirrhinum)
- Stocks** (Gilliflower) The stock is one of the most popular annuals, either for bedding or pot culture, for brilliancy and diversity of color, fragrance, profusion and duration of bloom it is unsurpassed.

Stocks (Continued)

Large Flowering 10—Weeks Stocks Red 10c, blue 10c, pink 10c, purple 10c white 10c, yellow 10c, mixed colors 10c.

Cut-and-come-again 10-weeks stock Splendid perpetual blooming class. Sow March or April. They begin flowering in June, continuing until frost, and are especially valuable from September to October when other flowers are scarce. They throw out numerous side branches, all bearing fine double flowers. Excellent for cutting. White 10c, rose 15c, red 15c, blue 15c. Fine mixed colors. 10c pkt.

German Stocks Half-hardy biennial, double flowers; 2 ft. Mixed colors. 10c pkt.

Sunflower Remarkable for their stately growth, size and brilliancy, making a very showy effect among shrubbery and for screens. Single sunflowers are indispensable for cutting. Sow in a sunny spot in April or May. They come into bloom early in summer and keep up a constant supply of flowers until cut down by frost. 5c pkt. Single dwarf or miniature sunflowers 10c pkt. Giant Sunflower, 8 ft. 5c pkt.

SWEET PEAS Ebeling's cream of the named Sweet Peas. This is a select list of giant-flowering varieties. We have discarded all small-flowering sorts and duplicates under different names.

America Crimson scarlet, striped on white, large size. 5c pkt. 10c oz.

Blanche Ferry Extra early. The popular pink and white. Comes into flower ten days earlier than others. 5c pkt. 10c oz.

Dainty Pure white edged with pink on the standards and wings. 5c pkt. 10c oz.

Dorothy Eckford The grandest, pure white; very large, producing enormous mass of blooms. 5c pkt. 10c oz.

Gorgeous Brilliant orange salmon. 5c pkt. 15c oz.

King Edward VII Bright red, giant flowering, very fine, strong stems. 5c pkt. 10c oz.

Lady Grisel Hamilton The finest pale lavender. 5c pkt. 10c oz.

Lottie Eckford White shaded lilac, white shaded, and edged lavender blue. 5c pkt. 10c oz.

Lovely Warm rose, pink, large and extra fine. 5c pkt. 10c oz.

Navy Blue Deep indigo blue, medium size. 5c pkt. 10c oz.

Othello Deep maroon, very dark maroon, fine form and large size. 5c pkt. 10c oz.

Prima Donna Soft pink; a magnificent rich, pure pink; very fine. 5c pkt. 10c oz.

Prince of Wales The finest bright rose. 5c pkt. 10c oz.

Queen Alexandra Beautiful Scarlet, Very Brilliant, Handsome and desirable, 5c pkt. 10c oz.

Mrs. Eckford Light primrose, large size, semi-hooded form, of the best type. 5c pkt. 10c oz.

Sadie Burpee Pure white, large size, very fine. 5c pkt. 10c oz.

Double Flowering Sweet Peas Finest mixed colors. 5c pkt. 10c oz.

Sweet Peas Mixed Price, 5c pkt: 10c oz; 20c 1-4 lb; 60c lb. Our mixture of sweet peas are mixed under our personal supervision and contain all of the very best named sorts known to the trade, and we confidently offer them to most careful and critical buyers. A finer mixture cannot be found.

Spencer Orchid-Flowered Sweet Peas. The introduction of this type has created new interest and added to the popularity of Sweet Peas. They are quite distinct from the Standard sorts, having large, round, open flowers, extraordinary size, measuring two inches across wavy standards, wide spreading wings, a very large percentage bearing four immense blossoms to the stem, which is long and strong, making them of exceptional value for cutting. All have been thoroughly tested and are just as easy to grow as the standard varieties. 10c pkt. 20c oz.

Sweet Rocket (Hesperis) Old-fashioned garden plant, also known as Dame's Rocket and Dame's Violet; 2 to 3 ft. high, with spikes of showy white, lilac and purple fragrant flowers; fine for shrubbery and permanent border; mixed colors. 5c pkt.

Sweet Sultan See Centaurea.

Sweet William (London Tufts) A well-known attractive free-flowering hardy perennial, fine for beds and shrubbery; 1 1-2 ft. Sgl. mixed 5c. Double mixed 5c pkt.

Tagetes (See Marigolds and Calendula)

Signata Pumila A dwarf, compact, bushy, annual marigold with beautiful delicate fern-like leaves, densely covered with flowers of bright yellow striped brown; fine border plant 5c pkt.

Thunbergia (Black-eyed Susan) Beautiful rapid-growing climber used especially for hanging baskets, low fences, etc., flowers in buff, white orange, etc., with dark eyes; mixed colors 5c pkt.

Torenia Fine annual; splendid plant for vases, hanging baskets, borders etc., blooming the entire season. Blue, white, and yellow. 10c pkt.

Tritoma (Red Hot Poker Plant) Readily grown from seed. Will bloom first year if sown early. Tritomas are becoming very popular for bedding plants and cut flowers; hardy perennial; 4 ft. Vary in color from light and deep orange, salmon and carmine. 10c pkt.

Tropaeolum (See Nasturtium)

Verbenas One of the most popular and free-blooming varieties and so well known that a description of this variety is unnecessary. Half-hardy perennial; easy of culture; sow early and transplant when weather permits. Fine for beds, baskets, rockeries, etc. Scarlet 10c, variegated 10c, white 10c, mixed colors 10c.

Viola (See Pansies)

Vinca (Madagascar Periwinkle or old Maid) Ornamental free-blooming plant, fine for bedding flower from seed the first season continuing until frost, or they may be potted and kept in bloom through the winter, 2 ft. Rose 10c, white 10c, mixed 5c.

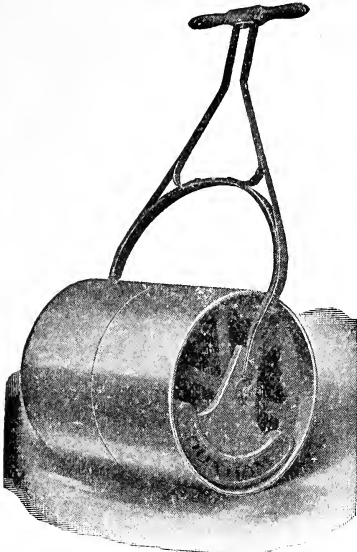
Wall Flower (See Cheiranthus) Half-hardy perennial, 1 1-2 ft high. Mixed 5c pkt.

Wild Cucumber (See Echinocystis.) 5c pkt.

Wild Flower Garden 5c pkt.

Zinnias (Youth and Old Age) One of the most brilliant and showy of annuals. An old and continued favorite. The seed can be sown early and transplanted or sown later in open ground. They come into bloom early in summer, and continue until hard frost.

Dwarf double white, orange scarlet, rose, etc. 5c. Tall double mixed 5c. Dwarf single mixed 5c.



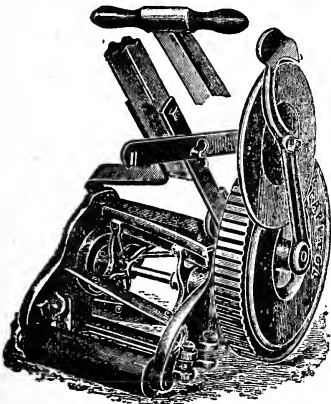
Dunham Lawn Rollers ROLLER BEARING

Are infinitely superior to other rollers. In efficiency, being 44 per cent. lighter running than any other roller on the market by actual tests. With a Dunham a boy can do the work that requires a man's strength with other rollers of the same weight. 200 lbs. \$10; 250 lbs. \$11; 300 lbs. \$13

Water-weight Roller

The Dunham Ball-bearing Water-weight Roller is made in one section and electric-welded, no rivets being used so the water cannot possibly leak out. The weight of this roller can be increased or diminished by increasing or decreasing the water. Very simple and easy to handle and revolutionizes the work of rolling. When not in use the water can be let out if desired. Price \$13.00.

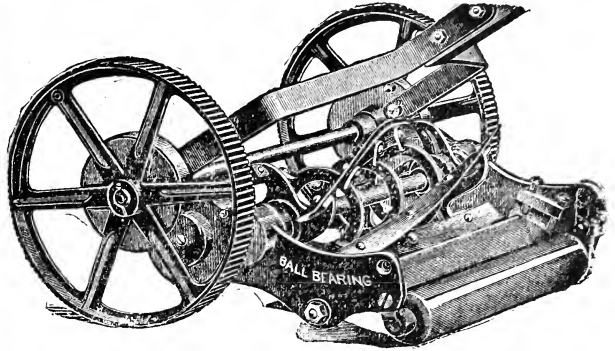
Capital Lawn Trimmer



For trimming around walks, flower beds, trees, posts, monuments and shrubbery, and all places that cannot be reached with any lawn mower. Cuts within one-fourth of an inch of the edge.

Has a revolving cutter with four crucible steel blades, tempered in oil and cuts six inches wide.

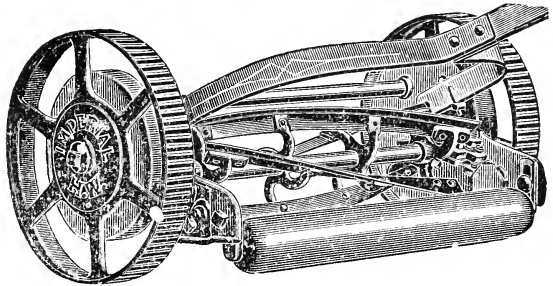
FOREST CITY BALL BEARING



This unquestionably is the Best BALL BEARING MOWER on the market. Perfect in detail, absolutely guaranteed.

15 inch	-	\$10.00	19 inch	-	\$12.00
17 "	-	11.00	21 "	-	13.00

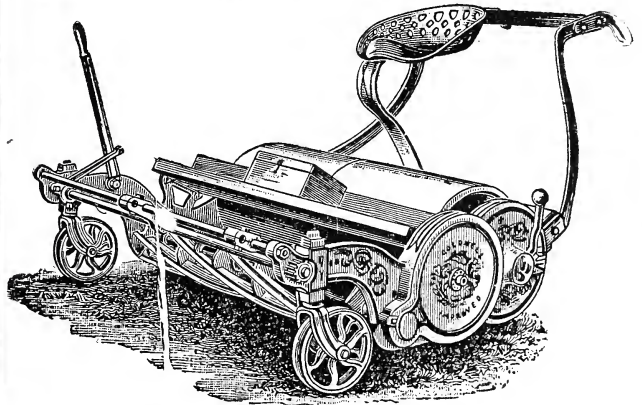
HIGH WHEEL IMPERIAL



Absolutely Warranted for Two Years. Positive Adjustment. Has no Equal. In Public Parks, Private Lawns and Cemeteries everywhere. Ask for Special Catalogue.

16 inch	-	\$ 9.00	20 "	-	12.00
18 "	-	10.00	22 "	-	13.00

IMPERIAL HORSE LAWN MOWER



PRICE, \$55.00 AND UP.

Absolutely Guaranteed to Cut Clean in turning around. Send for Catalogue.

SPRING PLANTS, BULBS AND ROOTS.

	PER DOZ.		EACH	DOZ.		EACH	DOZ.
Cauliflower Plants	25 cts	Salvia	.10	1.00 "	For-get-me-not	.10	1.00 "
Cabbage	10-25 "	Alyssum	10	1.00 "	Dracaena	.10	1.00 "
Tomato	25 "	Aster		.35 "	Petunia		.50 "
Egg Plant	50 "	Vincas	.15	1.75 "	Pansy		.40 "
Pepper	25 "	Verbenas	.05	50 "	Beautiful Japanese Fern		
Kohlrabi	"	Geraniums	.10	1.00 "	Balls each	50	"
Root Celery Plants	"	Assorted Plants	.10	1.00 "	Porch hanging baskets		\$1.25
Sweet Marjoram	"	Cannas	.10	1.00 "	to \$2.00		
Sage Plants	"	Snap Dragon	.08	1.00 "	Moss for hanging	.15	per lb.
Summer Savory	"	Ten-Weeks Stock	.10	1.00 "			
Thyme	"	Double Lobelia	12-1-2	1.25			

Calladiums, Gladiolas, Dahlias, Tube-Roses, Tuberous Begonias, Maderia Vines, Peonies, Gloxinias.

GALVANIZED WINDOW BOXES

No.	Height	Width	Length	Water Capacity	Price	No.	Height	Width	Length	Water Capacity	Price
0	6-in.	6	16-in.	1 qt.	\$1.50	6	8-in.	9½	33-in.	5 qt.	3.00
1	8-in.	9½	23-in.	2½ qt.	1.75	7	8-in.	9½	35-in.	5½ qt.	3.25
2	8-in.	9½	25-in.	3 qt.	2.00	8	8-in.	9½	37-in.	6 qt.	3.50
3	8-in.	9½	27-in.	3½ qt.	2.25	9	8-in.	9½	39-in.	6½ qt.	3.75
4	8-in.	9½	29-in.	4 qt.	2.50	10	8-in.	9½	41-in.	7 qt.	4.00
5	8-in.	9½	31-in.	4½ qt.	2.75						

FLORISTS' SUNDRIES

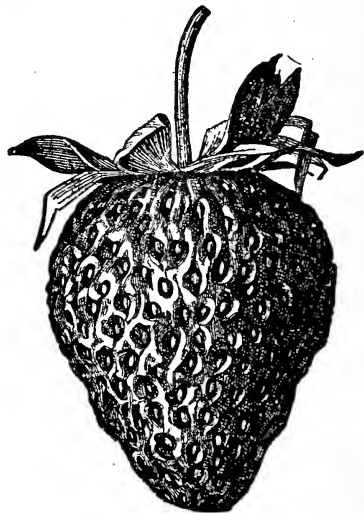
Self Registering Thermometers	Hanging baskets
Tin Foil	Flower Supports
Green Moss	Plant Stands
Florist Letters	Trellisses
Raffia and Reed	Shears
Immortelles	Scissors
Mastica	Fine Cutlery
Plant Labels	Syringes for Plants
Fumigators	Flower Pot Brackets
Bulb Syringes	Sharpening of Shears, etc.
Glazing Points	Lawn Seed and Fertilizers
Flower Pots	Bird Supplies
Hyacinth Glasses	Wire Plant Supports

Silkalene, per spool, 30 cents

STRAWBERRY PLANTS

We are pleased to announce that we can furnish choice thrifty STRAWBERRY and RASPBERRY Plants of all the leading varieties and recommend them to our customers.

Strawberry Plants 75c per 100; Raspberry Plants \$1.50 per 100. Leave orders early.



BERRY BASKETS.

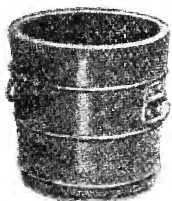
Under the new law all Berry Baskets must be made up to the standard size. We offer Berry Baskets of correct size and shape and well made. Prices right. Our Baskets fit the Crate perfectly. We can save you money on berry baskets if you place orders early. Call and see us before buying.

GRAPE BASKETS

We carry a large stock of Grape Baskets at the lowest market price.

FLOWER TUBS, ALL SIZES

\$1.00 \$1.50 \$2.00 \$2.50 \$3.00 \$4.00



Flower Pots

Hanging Baskets

Fern Pans

Lilly Pans

TRELLISES, URNS, VASES, SETTEES.

We offer a fine variety of styles in various sizes suitable for lawns front, yards, cemeteries, parks etc. These can be furnished to order on short notice, at reasonable prices. For full particulars, write or call and see us.



MASTICA FOR GLAZING GREENHOUSES, SASHES,

Etc., new and old. It is elastic, adhesive and easily applied. It is not affected by dampness, heat or cold.

Every green house man has experienced difficulty in using putty for glazing, that is satisfactory for any length of time. Putty is not adapted for greenhouse work. "Mastica," when applied, in a few hours forms a skin or film on the entire mass, hermetically sealing the substance, and preventing the evaporation of the liquids, and remains in a soft, pliable and elastic condition for years. "Mastica" is of great value in going over old houses with a putty bulb or machine on the outside of sash, as it makes it perfectly tight and saves the expense of re-laying the glass.

The use of "Mastica" avoids the necessity of repeatedly reglazing the houses, saving much time and expense. With "Mastica" you can bed in or use outside with machine.

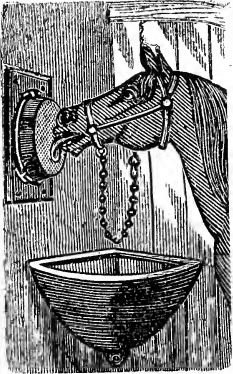
Broken glass can be easily removed and replaced by new without the breakage of other glass, which usually occurs with hard putty. One gallon will cover about 290 running feet (one side.)

Price of Mastica $\frac{1}{2}$ gal. 65c., gal. \$1.35.



MASTICA
GLAZING
MACHINE.

PRICE \$1.50.



Roto Salt Cakes and Frames

For Horses, Cattle and Sheep. Pure Refined Salt. Acts as a tonic; invigorates the system; promotes digestion; purifies the blood.

25C. CAKE

Five Cakes for One Dollar

Frames, - - - - - 25 Cents

Climax Handy Weeder



The greatest "little" device ever invented.

Nothing like it.

Thousands in use.

PRICE, 75 CENTS



Waters Tree Pruner
75c to \$2.00



OUR F. G. F.
PRUNING SAW.

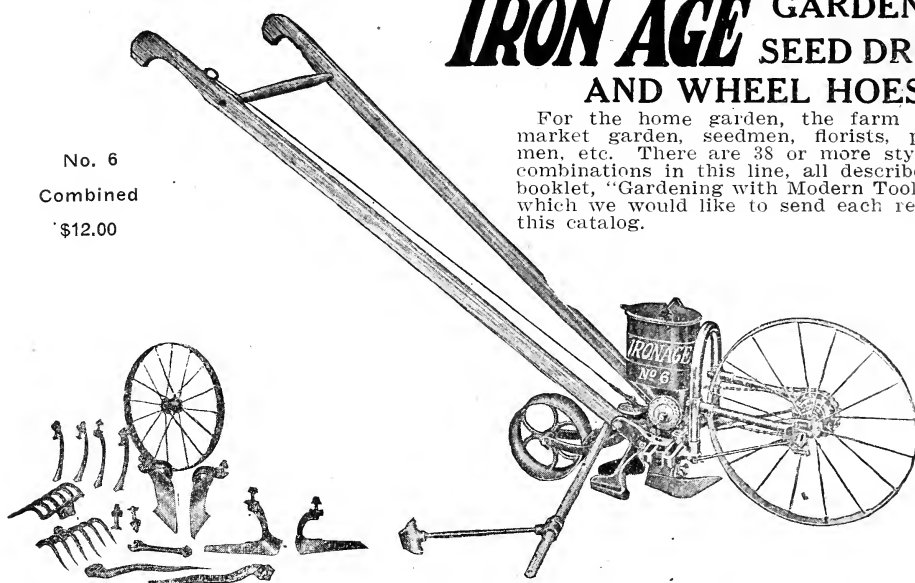
This is a very practical Pruning Saw, and is recommended by the Nurseries and Horticultural Societies everywhere. It is a self-feeding draw cut blade with a thin back that will not pinch or bind; may be attached to a pole, permitting very rapid work. It will do three times the work of hand saws or shear trimmers. It has no equal for cutting out suckers and for trimming the outside and tops of trees so difficult to reach. No stubs are left. It covers all the features required for an up-to-date labor-saving tool.

Price \$2.00.

IRON AGE GARDEN SEED DRILLS AND WHEEL HOES

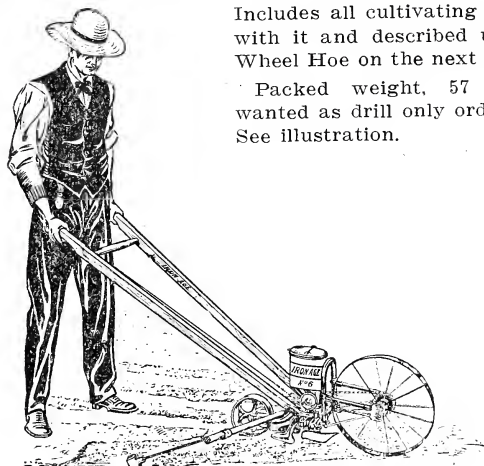
For the home garden, the farm garden, market garden, seedmen, florists, poultrymen, etc. There are 38 or more styles and combinations in this line, all described in a booklet, "Gardening with Modern Tools," and which we would like to send each reader of this catalog.

No. 6
Combined
\$12.00



No. 6 Combined Hill and Drill Seeder, Double and Single Wheel Hoe. Sows accurately any small garden or flower seed, in continuous rows or in hills, 4 to 24 inches apart, opens its own furrow, covers the seed and rolls it, and marks the next row. Sows where you can see it drop. Adjustable index permits you to sow as thick as your experience tells you is right. The shut-off is connected at the handles, at your finger ends. Includes all cultivating tools shown with it and described under No. 1 Wheel Hoe on the next page.

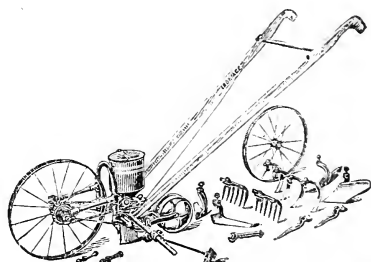
Packed weight, 57 pounds. If wanted as drill only order as No. 7. See illustration.



No. 7 Hill and Drill Seeder, \$9.00

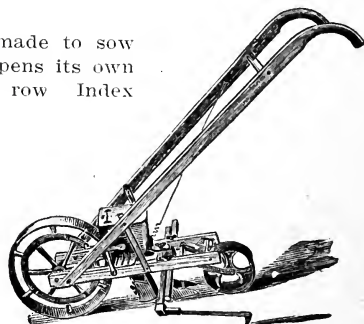
NEW MODEL SEED DRILL. Is strongly built and made to sow accurately in continuous rows, any thickness wanted. Opens its own furrow, covers the seed and rolls it. Also marks the next row. Index helps you to set right for sowing. Flow of seed can be cut off instantly. Adjustable marker. Capacity two quarts. Sows all kinds of seed.

Ask for
special IRON AGE booklets
giving full descriptions.



No. 4 Combined, \$11.00

No. 4 Combined Drill Seeder, Double and Single Wheel Hoe is same as No. 6 except that it is arranged to sow only in continuous rows and it has a different opening plow. If wanted as a drill only order as No. 5, Price \$8.00. Is also furnished as drill with side hoes and cultivating teeth, No. 40, Price \$9.50.



New Model Seed Drill, \$8.00

IRON AGE WHEEL HOES

NO. 1 DOUBLE AND SINGLE WHEEL HOE. Works astride or between the rows. Can be changed from double to single wheel in 3 minutes. This is the Wheel Hoe form of No. 6, and will take seeder attachment any time. Price of attachment, \$5.00. The tools include pair each side hoes, plows and rakes, also four steel cultivator teeth, all adjustable on the frame to suit width rows and character of work you are doing. You can open or cover fur-

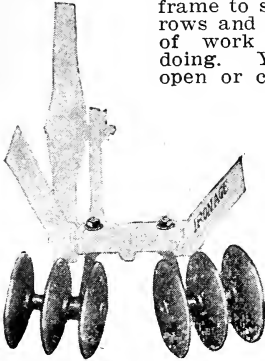
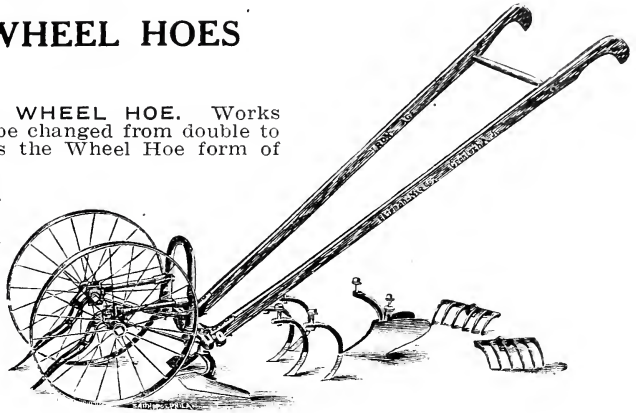
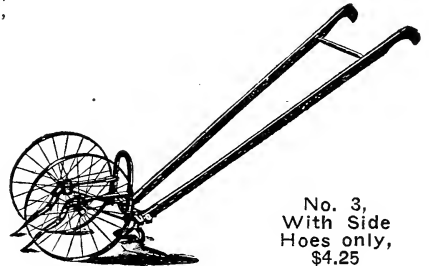


Fig. 369,
Disc Cultivating
Attachment,
\$2.00



No. 1 Double and Single Wheel Hoe, \$7.00

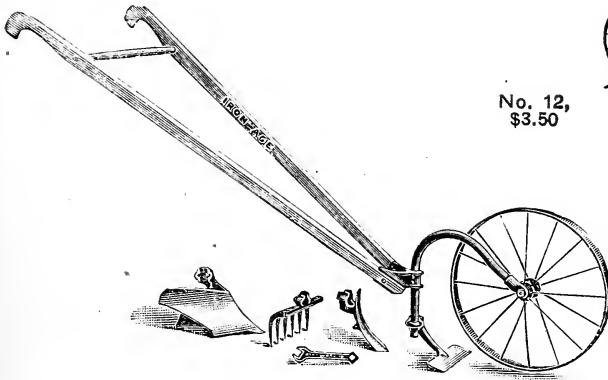
rows, ridge growing crops, cultivate, hoe close to plants without danger to them, pulverize and level the soil, and so forth. Steel tube frame, 16-inch steel wheel, bicycle style. Adjustable handles. Is pushed ahead a step at a time in a natural way. Is sold complete as No. 1 or as No. 3 with side hoes only. Takes Disc Cultivating Attachment, Fig. 359, Landside Plow Attachment, Fig. 82, and many others.



No. 3,
With Side
Hoes only,
\$4.25

No. 12,
\$3.50

NO. 12 WHEEL CULTIVATOR AND PLOW. Adapted to small gardens where it does not pay to invest in more expensive tools. Includes all tools shown. Landside Plow. Is particularly valuable in poultry yard in turning under soil and also for plowing under feed so chicks will have to scratch for it.



NO. 20 SINGLE WHEEL HOE, CULTIVATOR, ETC. Will do practically same work as No. 1 except that it is meant to go between rows only. Seed attachment can be used on it if wanted. If wanted with side hoes only, order as No. 21, Price \$4.00.

No. 20,
\$6.00

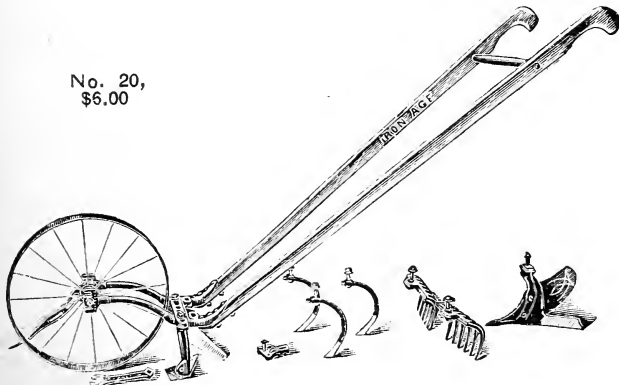


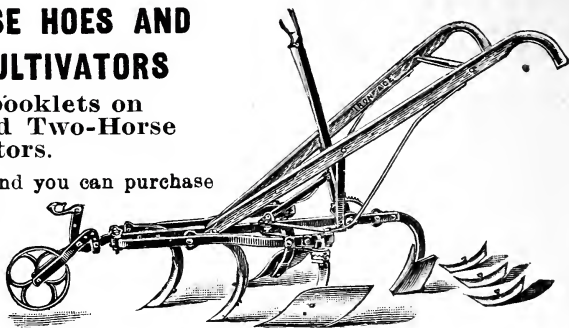
Fig. B2,
Landside Plow Attachm't,
\$0.90

Ask for Iron Age Booklet,
"GARDENING WITH MODERN
TOOLS."

IRON AGE HORSE HOES AND CULTIVATORS

Ask for complete new booklets on Horse Hoes, Harrows and Two-Horse Walking Cultivators.

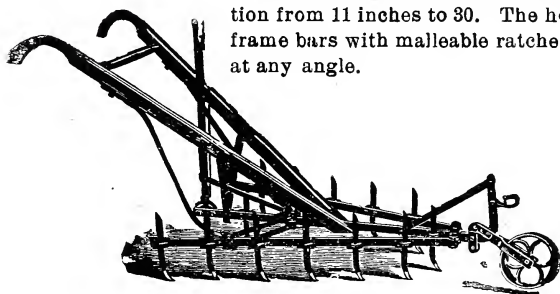
These tools are all made standard and you can purchase them in their simplest forms and build up to whatever your ground or crops need--with or without lever expander, with lever or plain wheel or without either, etc. Long, high steel frames, make them run steady and clear of trash.



No. 600 EP \$8.00.

With lever expander and plain wheel.

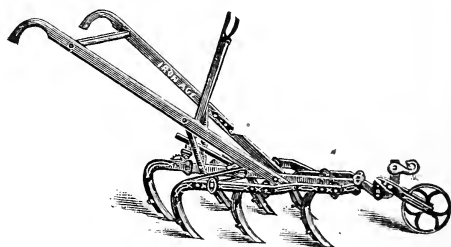
No. 600-EP Horse Hoe and Cultivator has a range of cultivation from 11 inches to 30. The hoe standards are solid steel, attached to the frame bars with malleable ratchet castings that give adjustments to the hoes at any angle.



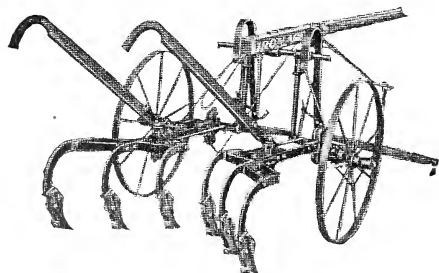
No. 1014 EP \$6.90.

No. 1014-EP Harrow and Cultivator carries 14 diamond shaped steel teeth with a small cultivator point forged on one end. It is adjustable for many kinds of crops and may be used as a Harrow or Cultivator. Opens to 34 inches and closes to 11.

No. 1007-EP Seven Tooth Cultivator. Especially adapted for first workings or in level cultivation. The teeth are narrow and cut deep, throwing small furrows that do not harm the young plants. Thorough cultivation in all soils. Opens to 24 inches and closes to 10.



No. 1007 EP \$7.15.



No. 976. \$26.00.

Two-Horse Walking Cultivators.

These are balance frame machines that are often used on steep hillsides or in very rough ground.

The gangs shift in parallel lines, the points always face one way and the handles are adjustable to permit the operator to work astride the row or at one side. The wheels are steel and adjustable on the arch from 36 to 48 inch rows. Built with 6 or 8 break pin or spring hoes or with spring teeth.

ASK FOR **IRON AGE** BOOKLETS

IRON AGE FERTILIZER DISTRIBUTORS

These are for use in gardens or on truck farms.

NO. 22 sows the fertilizer and seed at same operation. Opens two separate furrows for fertilizer and covers with soil before opening furrow for the seed. Covers the seed, rolls it and marks the next row. Distributes fertilizer thoroughly and sows the seed with practically the same seeding attachment as on No. 6 Combined. No. 22 can be used for side dressing and includes pair of extra wheels to travel astride the plants.

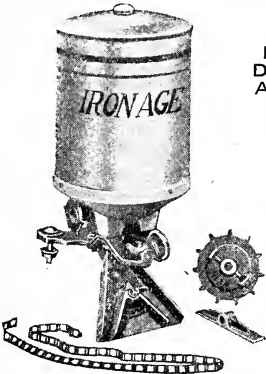
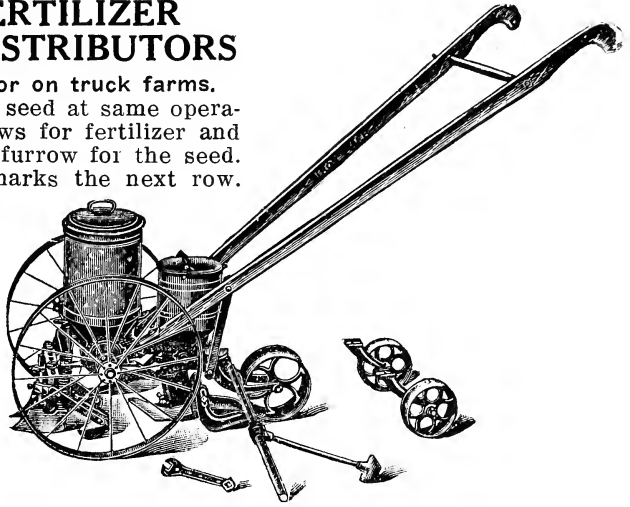


Fig. 184,
Fertilizer
Distributor
Attachment,
\$4.50

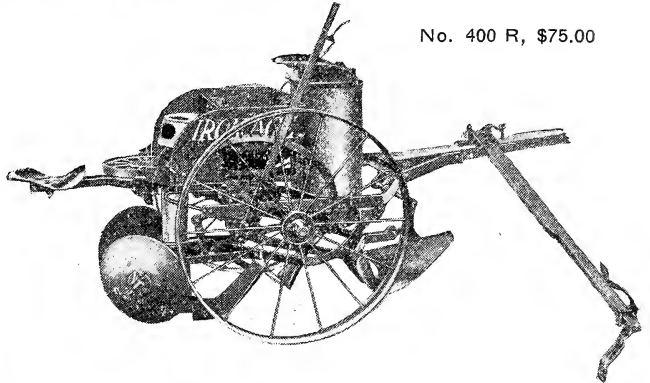


No. 22 Combined Fertilizer Distributor, Hill and Drill Seeder, \$18.00

FIG. 184 shows a fertilizer attachment that can be used on No. 1 or No. 20 Wheel Hoes. Sows across bottom of the furrow or on either side, so it will not come in contact with the soil. Can also be used for side dressing a growing crop.

IRON AGE POTATO PLANTER

Plants one seed piece in every space and one only. Makes a perfect stand possible and saves at least one bushel of seed per acre. Straight rows, even depth and uniform spacing. Can plant 9 to 24 inches apart. Furnished with or without fertilizer distributor, regular or large size. Also, with seed box extension if wanted. Steel seed box. Steel frame. Choice of four styles of opening

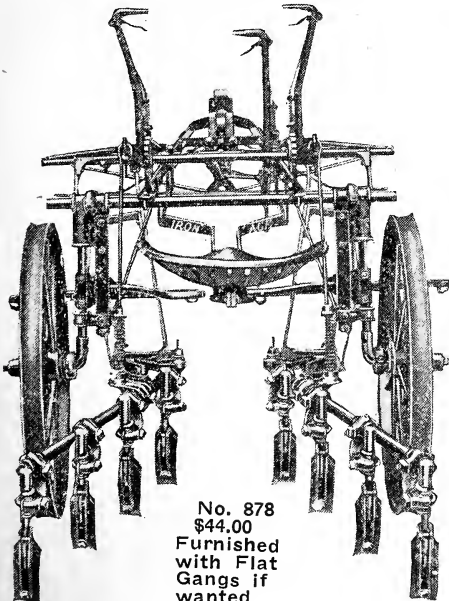


No. 400 R, \$75.00

plows. The boy on the back seat pays, for it costs no more to prepare ground, cultivate, fertilize and spray a perfect stand, and every hill missed decreases your yield.

IRON AGE RIDING CULTIVATORS

Steel pivot wheels with ball bearings, hinged gangs and grooved bars or flat gang bars, steel frame, steel whiffletrees, double end, reinforced cultivator points, parallel shift so points always face the way you set them, adjustment of points for depth and angle—these make this line of cultivators thorough and accurate, easy to guide, safe in adjustments and they wear well. Furnished with break pin or spring hoes or with spring teeth.



No. 878
\$44.00
Furnished
with Flat
Gangs if
wanted.

ASK FOR SPECIAL IRON AGE BOOKLETS ON EACH LINE.

IRON AGE

SPRAYERS For Every Purpose

There are more than 70 combinations suitable for all kinds of spraying, and most of them can be built up on the unit plan so that you can buy what you need now and the balance as you require it.

No. 192 Bucket Pump

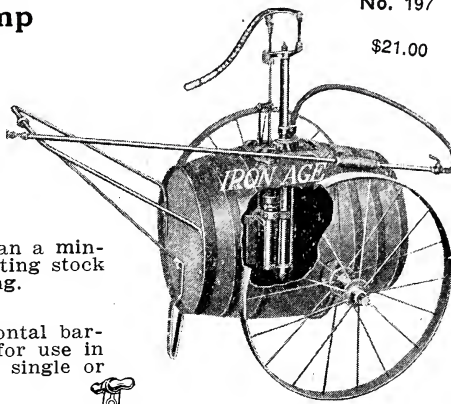
is made of brass and so put together that anyone can quickly get at any part for cleaning or repairs. Bronze ball valves, candlewick packing, pressed brass nozzle.

No. 197 is same pump mounted in 20-gallon barrel, on steel wheels, with four feet of steel pipe. Pump is detachable in less than a minute. A good outfit for disinfecting stock buildings or any other spraying.

No. 190 is 50-gallon horizontal barrel rig, mounted for use in any wagon, cart, etc. Pump, single or double acting. Can be built into a 50-gallon power rig or combination hand and power outfit. Automatic mixing of solutions.

Use in Any Wagon.

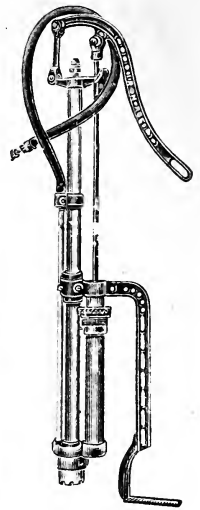
Outside Pumps.
Bronze Ball Valves.
Hemp Packing
Easy to Get.



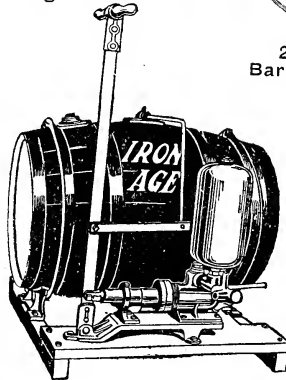
20 Gallon
Barrel Sprayer

No. 197

\$21.00



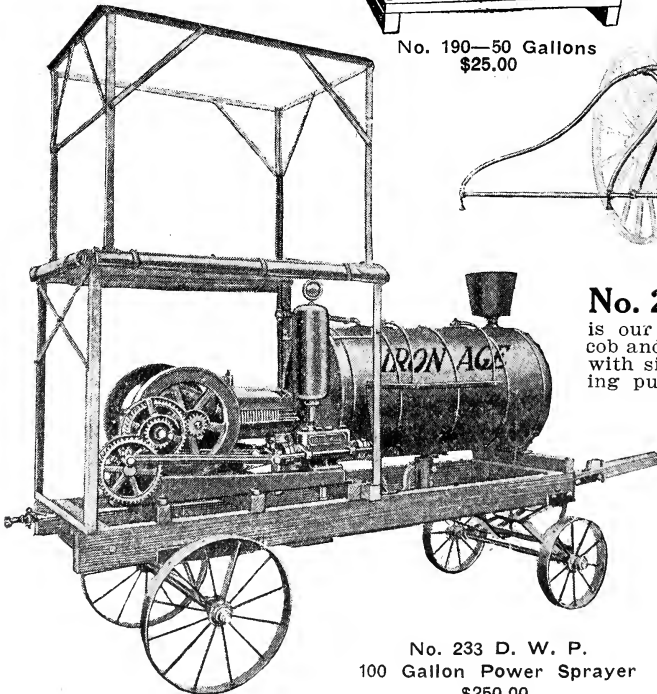
No. 192
Bucket Pump
\$7.50



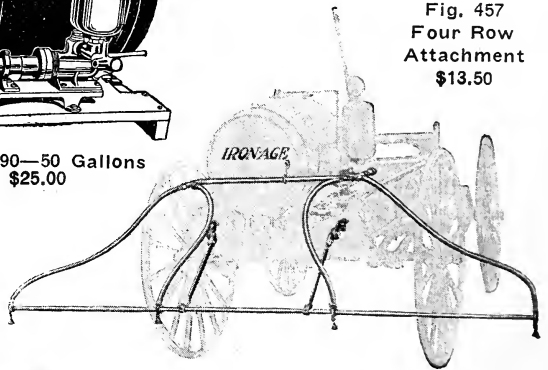
No. 190—50 Gallons
\$25.00

Fig. 457 shows 4-row attachment for use with No. 190 at back of a wagon, in row crops. Intended for small acreage.

Fig. 457
Four Row
Attachment
\$13.50



No. 233 D. W. P.
100 Gallon Power Sprayer
\$250.00



No. 233 D. W. P.

is our 100 gallon power sprayer with cob and guard rail, 200 pounds pressure with six to eight nozzles. Double acting pump, air-cooled 2 H. P. engine, automatic mixing of solutions, special sediment chamber, strong truck. Direct connection between engine and pump-cut gears. Steel tower and tank filler supplied if wanted.

Line also includes 150 and 250 gallon Power Sprayers.

Ask for "Spray" booklet and spray calendar telling "When, How and What to Spray With."

IRON AGE

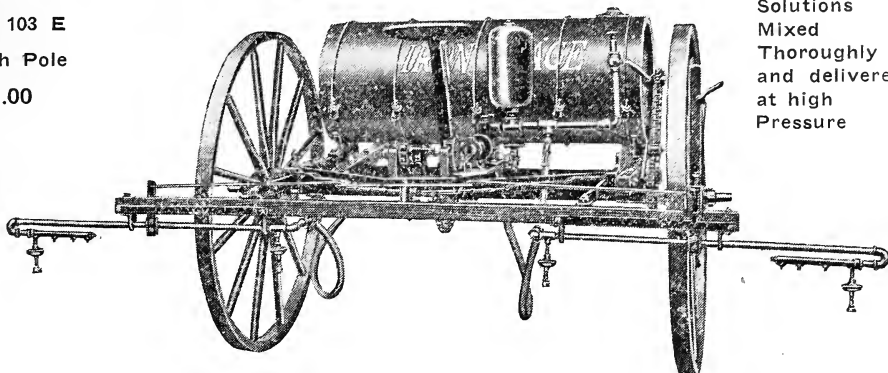
TRACTION SPRAYERS

For Potatoes and other row crops

No. 103 E

With Pole

\$103.00



Solutions
Mixed
Thoroughly
and delivered
at high
Pressure

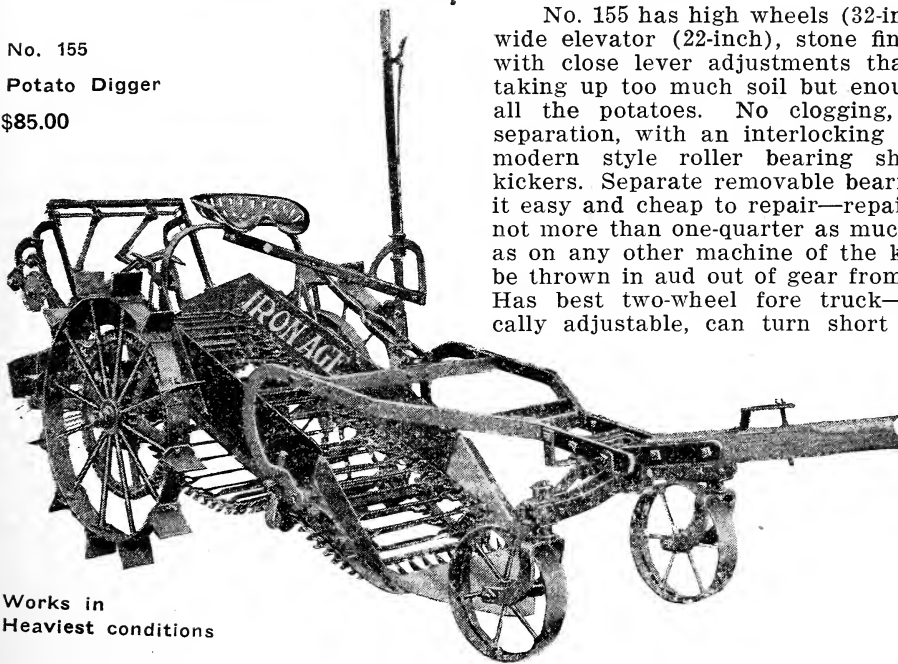
For potatoes and other row crops. Made in 4 or 6 rows, with 50 or 100 gallon wood tanks, wood wheels, single or double acting pumps, thorough mixing of solutions, large air chamber, bronze ball valves, hemp packing—all easily gotten at, relief valve to regulate the pressure, center drive by chain, pressed brass nozzles and nozzle strainers with every outfit, also wind shift. Spraying not only insures your crop against blight, which no amount of spraying can cure, and kills the bugs in a hurry, but every spraying actually improves the healthy condition of your plants and so increases the yield per acre. Takes an orchard attachment at a moderate price—entirely practical in small orchard.

IRON AGE POTATO DIGGERS

No. 155

Potato Digger

\$85.00



No. 155 has high wheels (32-inch) and a wide elevator (22-inch), stone finger plows with close lever adjustments that prevent taking up too much soil but enough to get all the potatoes. No clogging, thorough separation, with an interlocking chain and modern style roller bearing shaker and kickers. Separate removable bearings make it easy and cheap to repair—repair expense not more than one-quarter as much per acre as on any other machine of the kind. Can be thrown in and out of gear from the seat. Has best two-wheel fore truck—automatically adjustable, can turn short anywhere

Works in
Heaviest conditions

without straining machine—no danger of tipping. Can be backed and can be kept over the row easily. Steel spurs for wheels. Will save its cost to any grower in a short time, in saving labor, getting to market earlier and in better digging.

Ask for special IRON AGE booklets giving full descriptions.

The Two Greatest Insecticides

SIMPLE, EFFECTIVE, ECONOMICAL

LIME AND SULPHUR—PYROX

BOWKER'S LIME AND SULPHUR

Every spring when the buds are swelling, but before they show green at the tips, all your fruit trees, vines and shrubs of every kind should be sprayed with our Bowker's Lime-Sulphur. Applications made later than this may burn the foliage and cause serious injury. Therefore you should order early and be prepared for the season.

SPRAYING WITH LIME-SULPHUR IS CHEAP INSURANCE

It's better than most insurance because every time you spray you reap a benefit, whether you have San Jose Scale present or not. It kills all forms of scales and bark lice which are always present, the leaf blister mite, the eggs of many insects and the fungus spores which are lodged on the bark. It checks the growth of mosses and lichens and cleans up the trunk and the large branches.

Lime-Sulphur is not a poison and kills only by coming directly in contact with the insect. It does not kill leaf-eating insects. Spray for these with our Pyrox.

Our Lime-Sulphur has fungicidal properties and is invaluable for use on peaches, plums and all stone fruits.

It's in concentrated solution, always ready for Fall, Winter and Spring use. You simply add spring water and then spray.

ANALYSIS—Gravity (Beaume) 32 to 35; Calcium Polysulphides and Finosulphate 27.50 to 38.50. 1 gal. 65c.; 5 gal. \$2.00; 10. gal. \$3.50; barrels at 16 cts. per gal.

BOWKER'S PYROX—KILLS AND CURES



Pyrox sticks like paint; kills **all leaf-eating insects**, and **prevents disease** on potatoes, fruit trees, shade trees, and small fruits and vegetables. It serves the purpose for which two mixtures were previously used, and has done so for over ten years. Pyrox is no experiment; it was introduced in 1898.

It combines non-burning Arsenate of Lead with non-burning Bordeaux Mixture—both thoroughly tried-out remedies—in the shape of a dense, heavy, creamy paste that looks like paint, is easily mixed with cold water, and sticks like paint to the foliage. It won't wash off.

Bowker's Pyrox is something more than a combination of Arsenate of Lead and Bordeaux. It is a mixture with reliability and brains behind it; a mixture with laboratory and field experience to support it; a mixture made by careful methods in a modern plant under expert supervision. Such a combination costs more to make and is worth more to buy because of the insurance the name affords against haphazard preparations. Paris Green and Bordeaux applied together or separately never adhere through heavy rains like Pyrox. Frequently our customers send us sample leaves from trees sprayed in May or June that show plenty of Pyrox adhering in October.

It Won't Wash Off. If it were not for the new growth coming along, as is usually the case with shade trees, fruit trees, shrubs, potato vines, etc., and which of course must be protected, one spraying would be enough for the season. 1 lb. 25c.; 5 lbs. \$1.00; 10 lbs. \$1.75; 25 lbs. \$4.1; 50 lbs \$7.50; 100 lbs. \$13.50; 300 lbs. \$38.

INSECTICIDES

Arsenate of Lead, 1 lb. 25c; 5 lbs. \$1.00;

10 lbs. \$2.00; 20 lbs. \$3.75. See p. 55

Aphis Punk, per doz. \$6.00.

Black Stuff, Tobacco Powder, per lb. 10c.

Bordeaux Mixture, Dry, per lb. 25c.

Bordeaux Mixture, Liquid, qt. 35c; gal. \$1.

Bug Death, 1 lb. 15c; 3 lb. 35c; 5 lb. 50c;

12½ lb. \$1.00; 100 lb. \$7.00.

Carbolineum, 1 or 2 gals. \$1.25 per gal.;

3 gals. \$1.15 gal.; 5 or 10 gals. \$1 gal.

Cooper's Sheep Dip, pkg. 50c, \$2.00.

Eureka Fumigator, \$1.25.

Eureka Weed Killer, per can \$1.50.

Fir Tree Oil Soap, per pkg. 30c.

Fir Tree Oil, ½ pint, 75c; pint, \$1.00.

Hellebore, per lb. 25c.

Jumbo Powder Gun, 25c.

Kerosene Emulsion, 35c, \$1.00.

Lambert's Death-to-Lice, 10c, 25c, 50c, \$1.

Lime-Sulphur, see page 54

London Purple, per lb. 40c.

Nico-Fume for spraying and vaporizing, pt. cans, \$2; ½ gal., \$7; 1 gal., \$13.50.

Nico-Fume Tobacco Paper for fumigating, 24 sheets, \$1.00; 144, \$4.50; 288, \$8.50.

Nicoticide, ½ pt., \$1.25; pint, \$2.50.

Paris Green, 30c.

Persian Insect Powder, per lb. 50c.

Pyrox, 1 lb., 25c; 5 lbs., \$1.00; 10 lbs., \$1.75; 25 lbs., \$4.00; 50 lbs., \$7.50.

Slug Shot, 1 lb. carton 15c; 5 lb., 30c.

Sulpho Tobacco Soap, 10c and 20c.

Tobacco Dust, lb., 10c.

Tobacco Soap, per pkg., 25c and 50c.

Tobacco Stems, lb. 5c; per bale, \$2.50.

Weedicide, per gallon, \$1.50.

Whale Oil Soap, 10c, 15c, 25c.

Whale Oil Soap in bulk, per lb., 6c.

Whale Oil Soap and Tobacco, 1 lb, 15c;

5 lbs., 60c.

AUTO-SPRAY NO. 1

Capacity About 4 Gallons

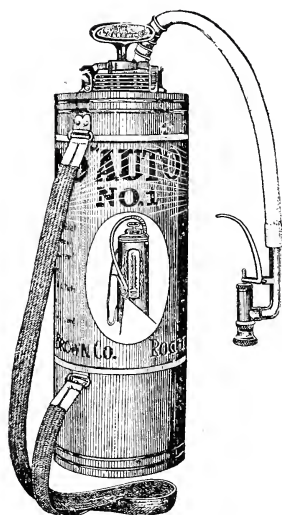
This is the strongest and simplest compressed air sprayer on the market.

More than 300,000 are in use and it has never failed to please our trade during the years we have sold it.

It is used to spray vines, shrubs, trees, potatoes, also for applying disinfectants and whitewash in buildings.

It is made with galvanized or brass reservoir, as ordered. (We recommend the brass because not affected by strong chemicals.)

GUARANTEE—We agree to refund purchase price to any dissatisfied customer within ten days.



Auto-Spray No. 1
Figure No. 413

NET CASH PRICES

Auto-Spray No. 1-B, brass tank.....	\$7.25
Auto-Spray No. 1-D, galvanized tank.....	5.00
2-ft. Brass Extension for trees and low down work....	.50
Brass Elbow to spray under side of leaves.....	.30
Brass Strainer for filling.....	1.00

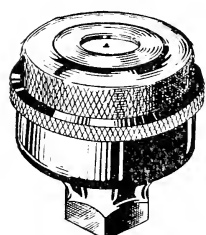
NON-CLOG ATOMIC NOZZLE

This nozzle is what its name implies. It is the only nozzle made which does not and cannot clog.

It may be adjusted for wide or narrow spread of spray and for long distance or near-by work.

We warrant this nozzle and will refund purchase price within ten days to any customer who is not more than pleased.

We repeat **IT DOES NOT CLOG**. One user said the **NON-CLOG** was worth \$10.00 to him.



Non-Clog Atomic
Figure No. 269

PRICE —Brass, straight or 45 degrees.....	\$1.00
Aluminum, straight or 45 degrees.....	1.20

AUTO-SPRAY NO. 40

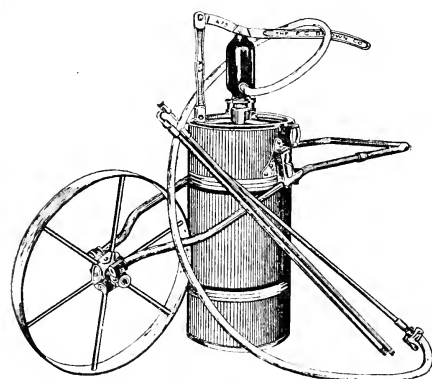
A General Purpose Sprayer

Made in two sizes, either galvanized or brass tank and with or without truck.

The pump is powerful, has brass working parts and ball valve, an ample agitator cleans suction screen in operation and mounted on truck with 20-inch wheel, is easily portable on soft ground.

Each machine is equipped with 8 feet of $\frac{3}{8}$ -inch high grade hose, 8 feet of iron extension pipe, lever shut-off and nozzle.

The Auto-Spray No. 40 is adapted to both large and small work and will spray a tree as well as the largest sprayers made. It is largely used for whitewashing and in greenhouses.



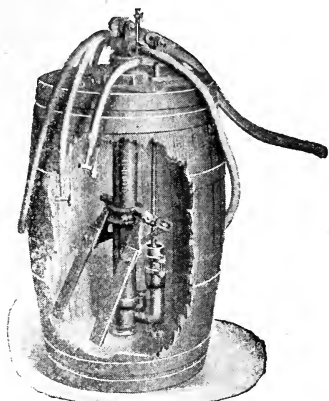
Auto-Spray No. 40
Figure No. 426

PRICES

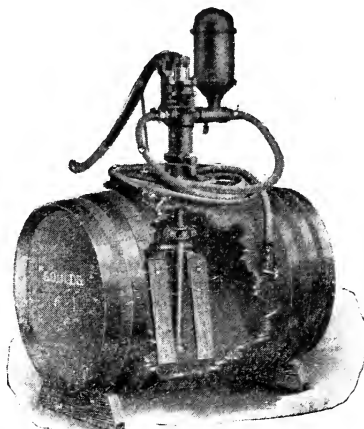
Auto-Spray No. 40-A—Brass tank, capacity 8 gallons, no truck.....	\$14.00
Auto-Spray No. 40-B—Galvanized tank, capacity 8 gallons, no truck.....	12.00
Auto-Spray No. 40-C—Brass tank, capacity 12 gallons, with truck 20-in. wheel...	17.00
Auto-Spray No. 40-D—Galvanized tank, capacity 12 gals., with truck 20-in. wheel	15.00

GOULDS HAND SPRAYERS

Pomona—Standard—Monarch



Goulds "Pomona"
Barrel Sprayer



Goulds "Standard"
Barrel Sprayer



Goulds "Monarch"
Two-Cylinder Sprayer

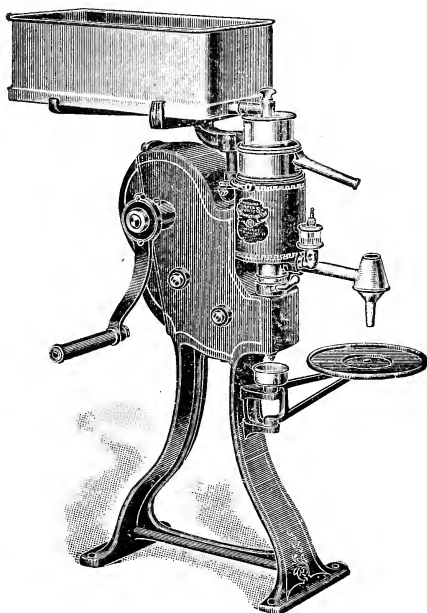
The Pomona is an extra high-grade barrel sprayer with sufficient capacity for two leads of hose and four nozzles. The plunger, plunger connection, gland, valves, valve seat and strainer are solid bronze and are not affected by chemicals. An agitator keeps the solution well mixed, this agitator being operated by a connection to the pump lever. The plunger is $2\frac{1}{2}$ inches in diameter and the stroke is adjustable, 3, 4 or 5 inches.

The Standard is arranged so it can be mounted on the end or side of the barrel as desired. It is made in two sizes with $2\frac{1}{2}$ or 3-inch cylinder. The working parts are bronze. The differential plunger gives a constant even pressure. Price includes brass suction strainer, but does not include suction pipe and agitator.

The Monarch is a large capacity pump for use in a wagon or on skids with the barrels of solution separate. It is useful in large orchards where a barrel sprayer is not of sufficient capacity. This pump is also widely used for whitewashing and painting.

Pomona	With agitator and one lead 15 feet $\frac{3}{8}$ -inch discharge hose with Mistry Jr. spray nozzle mounted on end of barrel.	Price \$17.00
Pomona	With agitator and two leads of 15 feet each $\frac{3}{8}$ -inch discharge hose with Mistry Jr. spray nozzles, mounted on end of barrel.	Price \$20.00
Standard	Fig. 905, $2\frac{1}{2}$ -inch sprayer with 1-inch iron suction pipe, brass strainer, and one lead of 15 feet $\frac{3}{8}$ -inch discharge hose with Mistry Jr. spray nozzle, with Fig. 1321 agitator, mounted on side of barrel.	Price \$13.00
Standard	Fig. 905½, $2\frac{1}{2}$ -inch sprayer with 1-inch iron suction pipe, brass strainer, and two leads of 15 feet each $\frac{3}{8}$ -inch discharge hose, with Mistry Jr. spray nozzles, with Fig. 1321 agitator, with air chamber, mounted on side of barrel.	Price \$17.00
Monarch	2-inch cylinder, fitted with 5 feet $\frac{3}{4}$ -inch suction hose with strainer, Fig. 70, $2\frac{3}{8}$ inches diameter and one lead $\frac{3}{8}$ -inch discharge hose 15 feet long with one Mistry Jr. spray nozzle, no barrel supplied.	Price \$22.25
Monarch	$2\frac{1}{2}$ -inch cylinder, fitted up in same manner except has 1-inch suction hose and strainer, Fig. 70, $3\frac{1}{4}$ inches diameter. No barrel supplied.	Price \$25.25
Monarch	2-inch, fitted same manner with 2 leads $\frac{3}{8}$ -inch discharge hose, each 15 ft. long, and two Mistry Jr. nozzles. No barrel supplied.	Price \$25.25
Monarch	$2\frac{1}{2}$ -inch cylinder fitted in same manner except has 1-inch suction hose and strainer, Fig. 70, $3\frac{1}{4}$ inches diameter. No barrel supplied.	Price \$29.00

UNITED STATES CREAM SEPARATORS



To enlarge the income from your dairy you must install modern equipment, such as the United States Cream Separator.

The Interlocking U. S. Separator has NICKEL SILVER skimming sections which are guaranteed to never rust.

The MECHANICAL WASHER furnishes the most complete and quickest method of washing.

The U. S. Cream Separator with its improvements is a SANITARY MARVEL. Important new features make the BEST Separator still BETTER—the MOST PERFECT ever produced anywhere by anybody.

A great SANITARY feature is the new REMOVABLE LINER for bowl chamber. It is non-rusting and easy to wash. Milk, even in the smallest quantity, coming in contact with cast iron makes all other Separators unsanitary. The liner, exclusively a U. S. feature, prevents milk contact absolutely.

A new feature is the AUTOMATIC OIL CONDUCTOR which conveys fresh oil from the neck bearing to gear chamber and with its DUST SHIELD serves a dual purpose by keeping all foreign matter, dust, etc., from the gear chamber and lower bearing, adding years to the life of a Separator and permitting the machine to always run as easy as when new.

A U. S. Cream Separator will make you the most money, because it skims the closest. It holds the World's Record for closest skimming in fifty consecutive runs with milk from ten different breeds of cows.

Latest Interlocking Style

No. 40, guaranteed capacity	175 lbs.	\$30.00	No. 16, guaranteed capacity	600 lbs.	\$85.00
No. 39, " "	300 "	45.00	No. 15, " "	750 "	95.00
No. 18, " "	350 "	65.00	No. 14, " "	1000 "	110.00
No. 17, " "	450 "	75.00	No. 13, " "	1350 "	135.00

Power Attachments for Dairy Sizes

Clutch Pulley, 14 in. diam., 3 in. face, including shaft for crank.....	\$3.50
With additional Loose Pulley, extra.....	3.00

Pulleys 12 inches diameter can be supplied if desired at same prices.

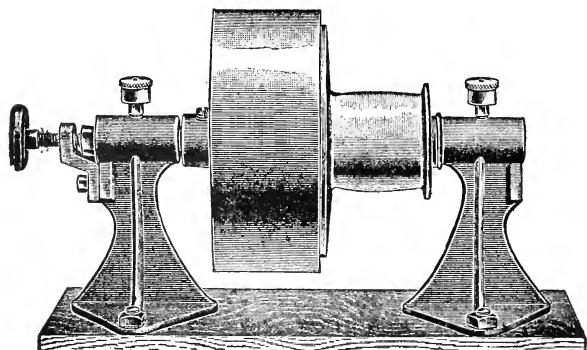
Separators fitted with Ratchet and Loose Pulleys 3 in. diam., 1 1/4 in. face, with Belt Shifter for Worm Gear Shaft (when ordered with separator). Additional price.....	6.00
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3-inch Pulleys with necessary attachments (when not ordered with separator). Prices on application.

Self Governing Pulley, for engine or line shaft only (give size of shaft).....	6.50
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Speed Governing Pulley, adjustable while running.....	9.50
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THE RANDOLPH GOVERNOR PULLEY



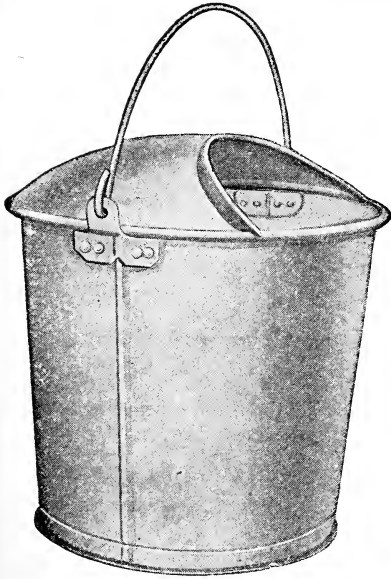
As shown in the adjoining cut absolutely governs the speed of the separator, releasing automatically when the proper speed is attained and absorbing all shocks from the gasoline engine. It runs in either direction without any change or adjustment. The pulley standard can be placed on the floor, side wall or overhead to suit conditions. We have embodied in the construction of this pulley the loose pulley feature whereby the Separator may be stopped without stopping the engine.

Attention is called to the fact that after the proper speed has been attained by setting the jamb nuts on the hand-wheel thread the correct speed will be maintained without further notice. Price, \$9.50.

MILKMEN AND DAIRY SUPPLIES.

Quart Milk Bottles	\$.70 per doz.	Wholesale Cans, all sizes	\$.40
" " "	6.50 per gross	Strainer Pails	" .65 to .75
Pint " "	.60 per doz.	Pint Dippers - - - -	.25 to .45
" " "	5.50 per gross	Quart Dippers - - - -	.35 to .50
Half Pint Milk Bottles	.50 per doz.	Strainers - - - - -	.50 to 2.00
" " " "	4.25 per gross	Tin Milk Pans, per doz	1.50 to 3.00
Milk Cans 50 quart	4.00	Tin Milk Pails, all sizes	.30 to .75
" " 40 "	3.00 " "	Sprinkling Pots, "	.25 to 1.25
" " 30 "	2.75 " "	Excelsior Strainers - -	2.50
" " 20 "	2.50 " "	"Our Own" Strainers -	2.00
Milk Caps - - - -	.25 per 1000	Aerators - - - - -	5.00 to 7.00
Carrying Cans, all sizes	.50 to 2.25		

LISK'S SANITARY PAIL



This Sanitary Pail combines nearly all of the good points that are contained in the many kinds put on the market in recent years, and is highly recommended by the Boards of Health and the State Milk Inspectors. A trial will convince. Price, \$1.75.

MILK FEVER OUTFIT.

For Sterilized Air Treatment.

This treatment has cured 97 per cent. of all cases treated. This treatment is recommended by the Bureau of Animal Industry, United States Government, Department of Agriculture.

The outfit consists of the instrument, a roll of tape, a package of carbolized cotton. Full directions, neatly packed. Price, \$3.00 net.

MILKING TUBES.



Full Directions with Each Tube. 35 cents to \$1.25 each.

SCALES.

Dairy Scales \$3.00

Platform Scales \$12.00

RICE'S CALF WEANER AND SUCKING COW MUZZLE.

For preventing Calves and Cows sucking themselves or each other.

No. 1—For Calves till 1 year old, 25c, by mail postpaid 35c

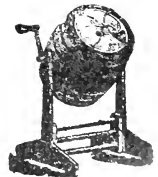
No. 2—From 1 to 2 years old, 50c, by mail postpaid 56c

No. 3—For full grown animals and self suckers, 75c, by mail postpaid 85c

BARREL CHURNS.

No. 0,—	4 gallon, will churn,	2 gallons	\$3.50
No. 1,—	10 " "	5 " "	4.50
No. 2,—	15 " "	8 " "	5.00
No. 3,—	20 " "	10 " "	5.50
No. 4,—	25 " "	12 " "	7.00
No. 5,—	30 " "	14 " "	8.00

Oak Dash Churns, Stone Dash Churns, Dog Powers, Butter Workers, Skimmers, Butter Carriers, Ladies, Richardson's Butter Color, Butter Prints, Floating Glass Thermometers, Dairy Thermometers, Cream Gauges, Babcock Butter Tester.



MILK BOTTLES.

1 quart, 70 cents per doz.
1 pint 60 " " "
1-2 " 50 " " "

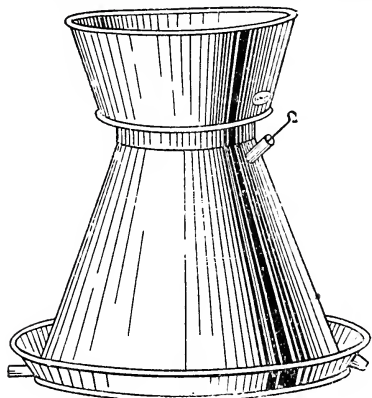
Special price in gross lots.

MILK CAPS.

Per thousand, 25 cents.

CHAMPION MILK COOLER AERATOR

Automatic, Simple, Efficient, Durable.



1—10 quarts,	1 to 10 cows,	2 milkers,	\$ 5.00
2—18 quarts,	10 to 25 cows,	3 milkers,	6.00
3—34 quarts,	25 to 50 cows,	5 milkers,	7.00
4—52 quarts,	50 to 100 cows,	8 milkers,	10.00

Stop deaconing and selling your calves while very young—there is \$8 to \$12 profit in every calf if you use

SECURITY CALF MEAL

Security Compound is not a calf meal, does not have to be cooked or bothered with like calf meals; does not require milk like calf meals, for Security Compound is a chemical reproduction of cows' milk and takes the place of the cows' milk after the third day.

Security Compound will fatten your calf for vealing at a cost of 10c a day. If you sell your veal in 28 days your calf will only cost you \$2.80. The milk alone fed with calf meals cost \$3.20 for the same number of days and you have to buy the meal additional. Therefore Security Compound is cheaper than calf meals and will produce a better calf. The company's guarantee to every farmer is this: "We guarantee that you can raise as good, fat, and healthy a calf on Security Compound as on whole, fresh milk." Your money back if it does not meet this test. For particulars write, 'phone or call on F. H. Ebeling, Syracuse, N. Y. Price, 12½ lb. package \$2.50; 25 lbs., \$4.00. Special price in large lots.

STONE'S WAGON POLE SUPPORT

This splendid device carries the tongue, neck-yoke and whiffletrees. Gives greater comfort, being free from the horses' necks. These supports have sufficient length of steel to make them flexible and easy on tongue and hounds. This spring relieves the horse of entire weight. Does not affect running of wagon. It prevents sore necks. Keeps tongue off the ground, easily applied. Price \$2.50

PROTECT YOUR TREES BY USING R. P. R. TREE PAINT

The Farmer, the Orchardist, the Owner of Shade Trees cannot afford to be without it. Those who have realized the necessity of covering exposed wood have had to use common paint or tar, both unsatisfactory agents. At last an antiseptic, weather proof preparation with none of the objectionable properties of tar and ordinary paint is on the market. No other substance has the combined properties of weathering indefinitely, hastening growth, and preventing decay. R. P. R. Tree Paint has been used successfully for years in tree repair work both by City Foresters and private firms. Try it once and you will always use it. It is put up in convenient cans and is easily applied. Write for booklet. Price per qt. 75c., ½ gallon \$1.25, gallon \$2.00.

SULPHATE OF IRON

SULPHATE OF IRON—kills Wild Mustard, Wild Radish, Wild Turnip, Moss in pasture lands, also destroys Dodder in Alfalfa and Clover. Sulphate of Iron is good for Cattle, Hogs and Poultry. Cures the Itch and kills Parasites. Makes Eggs larger. High Colored and more fertile and in increasing number. Destroys the Fly-breeding Larvae and keeps the premises free from flies. Is an excellent disinfectant to keep around the house and barn and will destroy all objectionable odors.

We have a carload of this at our warehouse. Booklet giving you full and detailed information with instructions how to use it and with many testimonials from our Central New York Farmers mailed free. Price \$1.00 per 100; \$18.00 per ton.

SENSIBLE BOTTLE FILLER



We have built the Sensible so strong and heavy that it will last a life time.

You can find no more sensible way to fill your bottles. Price \$3.50.



*"Good
to the
last
drop"*

Blatchford's Calf Meal

The Complete Milk-Equal

is in reality a substitute for milk—and should not be considered as an ordinary "feed" or "meal."

It contains all the elements of milk and when properly prepared becomes a "baby food" for calves and colts.

Average analysis of Blatchford's Calf Meal from a number of analyses taken at various times:

Protein . 25 per cent
Fat . . . 5 per cent

Prices

100-pound bag, \$3.50
50-pound bag, 2.00
25-pound bag, 1.00

\$3.50 per 100 pounds

It is just the thing for weaning calves as soon as they can be taken away from the cow. Then all the milk may be sold and you get the benefit of the high creamery prices.

It is absolutely the only milk-substitute that contains all the elements necessary for rapid and healthy growth, and the only calf meal that is thoroughly cooked and prepared for digestion.

*Will push calves and colts forward better and quicker
than any other food*

100 pounds makes 100 gallons of Complete Milk-Equal

EVERY HOG A MONEY MAKER

Keep your hogs free from worms. These deadly pests will rob you of your profits—starve your stock—make them thin, scrawny and finally kill. If you follow the advice of the best stockmen, you will have

NO MORE LOSSES FROM WORMS

E. C. Stone, Sec. of the American Hampshire Swine Record Assn. says: "I know of nothing so good, reliable and cheap to expel worms and put hogs in condition to digest food as Sal-Vet."

SAL VET

TRADE MARK

REG. U.S. PAT. OFF.

is a medicated salt—different from all other worm remedies. Safe, sure to kill worms, tones up your stock, helps turn food into fat and flesh quickly, puts animals in prime condition to get top-market prices. Commence getting rid of robber worms today. Use Sal-Vet—costs but 1-12 cent per day, per hog or sheep.

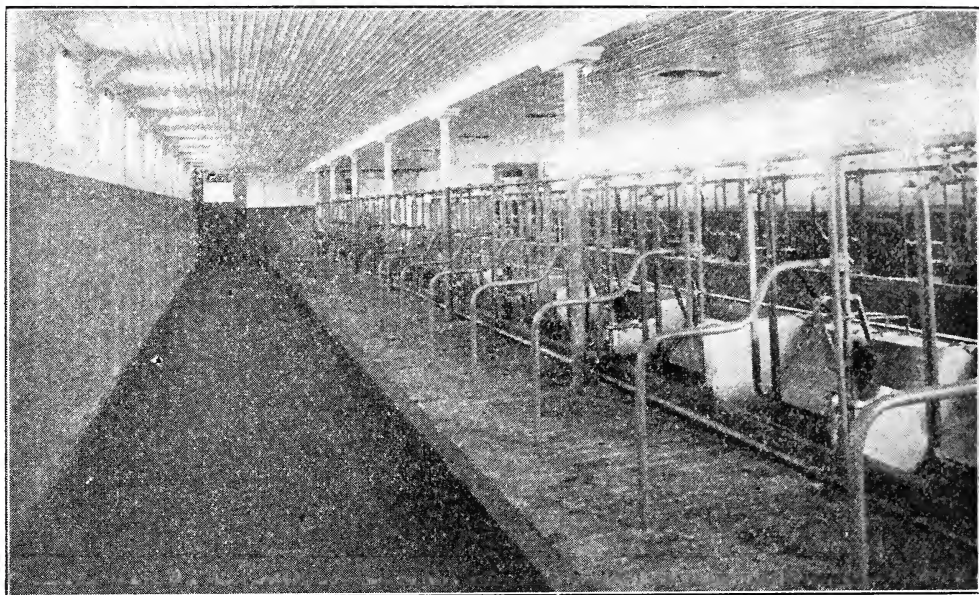
FOR SALE BY

F. H. Ebeling

Each 10 lb. drum.....\$.75
Each 20 lb. drum..... 1.25
Each 40 lb. drum..... 2.25

Each 100 lb. keg..... 5.00
Each 200 lb. bbl..... 9.00
Each 300 lb. bbl..... 13.00

THE JAMES WAY



SYRACUSE UNIVERSITY BARN AND STABLES

The above photograph shows one of the buildings connected with the Syracuse University College of Agriculture, and which contains the celebrated

JAMES STANCHIONS, STALLS AND LITTER CARRIERS

The following is a partial list of users of the celebrated James Sanitary Barn Equipment:

Stevens Bros. Co., Liverpool, N. Y., Holstein breeders.

H. M. Dunham & Son, Marcellus, N. Y., Holstein breeders.

J. A. Stanton & Son, New Woodstock, N. Y., Holstein breeders.

F. M. Jones, Clinton, N. Y., Holstein breeder.

E. H. Dollar Est., Heuvelton, N. Y., Holstein breeders.

John Arfman, Middletown, N. Y.

Borden's Condensed Milk Co., certified plants at Earlville, Edmeston, Walkill.

Sharpless Separator Co.

Mohawk Condensed Milk Co., and many others.

THE JAMES STALLS AND STANCHIONS

The man who depends on his cows for his living, must take advantage of every opportunity to save the time of his hired help and his own time; to prevent waste of feed; to avoid disease of all kinds; and he must use every proper means of increasing the yield of milk, and of getting a bigger price for his product.

James Equipment is designed specifically to meet every one of these needs. It keeps cows cleaner; saves labor, time and feed, all of which cost money; aids in preventing and curing tuberculosis and other diseases; prevents accidents that might cause abortion or ruined udders; increases the yield of milk, by making the cow almost as comfortable as in the open pasture; and the equipment, if you sell milk direct to the housewives, can oftentimes be used in such a way as to get more customers and a bigger price per quart.

At the same time, the equipment presents such a handsome appearance in the barn, that nothing better could be wanted in any stable, however fine.

Until the James Equipment was invented, stalls and stanchions were merely means of tying cows.

James Stalls and Stanchions tie the cows, all right—tie them so they can't get loose until they are turned loose—but the James Stalls and Stanchions are far more than mere cow ties.

Important as it is that the cows be tied securely, there are a dozen other ways in which the James stalls are of equal value.

The saving effected by the James Equipment amounts to as much in a year as the cost of the equipment itself; it is the biggest moneymaker on the dairy farm, and you are losing big profits every day you do without it.

As a matter of fact, you are paying for James Equipment whether you have it or not. Without it, you spend the money in unnecessary cost of caring for the cows in the barn, in wasted feed, ruined udders, and in other losses that would be prevented by James Equipment.

Since you are paying out the money anyhow, why not have the James Equipment to show for it? It pays for itself the first year, and thereafter earns big dividends.

THE JAMES WAY

James Watering Buckets

Every dairyman now realizes that regardless of how well the cow may be fed and cared for in every other way, the maximum yield of milk cannot be secured unless she has plenty of water.

The old way of watering once a day out in the yard is the most expensive that could be devised. The cows become very thirsty; and drinking excessively of cold water, become chilled, and are forced to use up energy getting warm again that should have been used in making milk.

But the increase of milk yield is not the only advantage. There is also the saving of time and labor of the attendants, and, as compared with other methods of watering in the barn, a saving of water. More important is the prevention of the spreading of contagious diseases through the water, for with the James Watering Buckets each cow is furnished pure, fresh water, direct from the protected supply tank.



The Old Way

The James Carriers

James Carriers are "long life" carriers—built to stand the strain and wear of years—made to forestall breakages and repairs—made to save the maximum of work and time. We are proud of them, believing that each is the best that can be built to meet the specific purposes for which it is designed. And in this belief, we are backed up by hundreds of enthusiastic, commendatory letters.

The James Ventilator

The James Ventilator is absolutely storm proof—neither snow nor rain can enter; nor can birds get in, all openings being covered with galvanized bird proof netting.

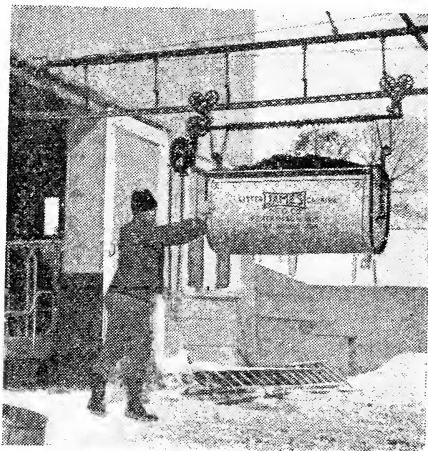
The James Ventilator lasts a lifetime; does its work without attention; interferes in no way with hay carrier track; and is easy to put in place on the barn.

Ventilates Haymow

The James Ventilator with the open base, ventilates the haymow as well as the stable. The outtake flue may be connected to the barrel of the James Ventilator with a cylindrical flue through the center of the ventilator base. This arrangement permits the foul air and moisture to escape from the haymow.

Appearance

The James Ventilator is worth its cost, if only for the increase in selling value of the farm caused by the improved appearance of the barn. It is the finishing touch that makes the barn good looking.



Price List

JAMES STANCHIONS—With alignment device.....	The James Way	\$2.00
Without alignment device.....		1.70
No. 14 B Steel Stalls, consisting of steel framework, stanchions with alignment device, swinging sure stop, stall partition.....		7.00
No. 14 C Steel Stall, same as 14 B, but with heavy steel manger divisions.....		8.75
No. 14 A. same as 14 B, but with James Individual self-cleaning manger.....		10.50

James Double Watering Buckets

Size $18\frac{1}{2} \times 10\frac{1}{4} \times 8\frac{3}{4}$ deep, weight without covers 25 lbs.

Price with covers.....	\$2.10	Price without covers.....	\$1.60
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James Individual Watering Buckets

Size $9\frac{1}{2} \times 9\frac{1}{2} \times 8\frac{1}{2}$ deep

With cover.....	\$1.95	Without cover.....	\$1.45
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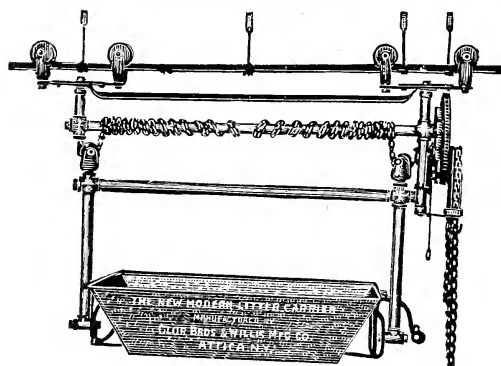
Note Above Prices are F. O. B. Syracuse

The James Big Boy Litter Carrier

With 14-bu. tub.....	\$26.50	Track.....	\$.13 per ft.
With 13-bu. tub.....	24.00	Hangers.....	\$1.68 and up

For further specifications on above equipment ask for a copy of the JAMES COMPLETE CATALOGUE. Litter Carrier prices are F. O. B. factory.

SANITARY STABLE FIXTURES



No. 115 Litter Carrier

NEW MODERN

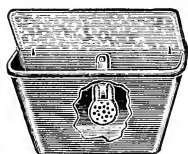
LITTER AND FEED CARRIERS

Single and Double Trolleys

Crank or Chain Hoist

Strongest and easiest running Carrier made. The most practical and up-to-date time and labor saver on the market. Carries the litter away from the stable and saves you three-fourths the expense. Pays for itself in a short time.

THE NEW MODERN WATERING SYSTEM



No. 410

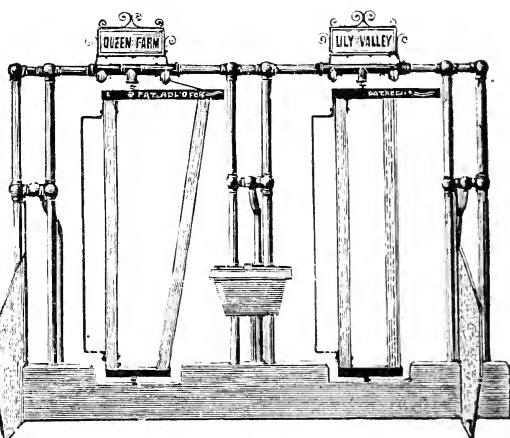
This Watering Basin with our system will furnish a cow with fresh water at any time. This means an increase of from 5 to 10 per cent in the flow of milk. The basins are cast iron thoroughly coated, round corners, smooth bottom. Inlet on the back side tapped for $\frac{3}{4}$ -inch pipe. Covered with strainer, hinged so that the particles of chaff can be easily removed. Hardwood back board included with each basin. No. 1, price \$1.50; No. 2, price \$1.75.

Galvanized iron covers, practical and sanitary. Cattle soon learn to raise the covers themselves. The drop is automatic. Price 35c and 50c.

NEW MODERN SANITARY STEEL STALLS

Steel or Wood Stanchions, Chain or Pivot hung; Manger Partitions, Guard Rails, Name Plates, Feed Mangers, Hay Racks, Hog Troughs, Tanks, Box Stalls, Calf Pens, Piggeries, Square End Guards, Adjustable Steel Gates, Horse Stall Guards, Salt Bricks, Cork Floors and Ventilating Systems complete.

Litter Carrier No. 115, Double Trolleys, Chain Hoist, Capacity 700 to 1000 lbs.....	\$42.50
Litter Carrier No. 112, Double Trolley, Crank Hoist.....	35.00
Ensilage Carrier No. 113, 25 bushel Capacity, Double Trolleys.....	37.50
Platform Carrier No. 114, Double Trolleys, Crank Hoist.....	35.00
Platform Carrier No. 114, Double Trolleys, Chain Hoist.....	42.50
Track including Hangers every 28 inches, per foot.....	.20
Curves including Hangers every 14 inches, per foot.....	.25
Latches for Track through Rolling Doors.....	1.00
Two-Way Switches.....	2.50
Switch Adjusters.....	7.50
Extra Hangers with Nails, per doz... 5/16 inch, 7 Wire Strand, per foot...	1.20
Stall No. 300 Double Standard, Steel Frame.....	4.50
Stall No. 310, Single Standard, Steel Frame, per stall.....	3.00
Stall No. 330, Wood Standards and Top, Angle Iron and Sockets.....	2.25
Stall No. 330, All Wood.....	2.00
Stanchions No. 20, Pivot Hung, Wood Bar.....	1.65
Stanchion No. 25, Chain Hung, Wood Bar.....	1.65
Stanchion No. 16, Pivot Hung, Steel Wood Lined Bar.....	2.00
Stanchion No. 15, Chain Hung, Steel Wood Lined Bar.....	2.00



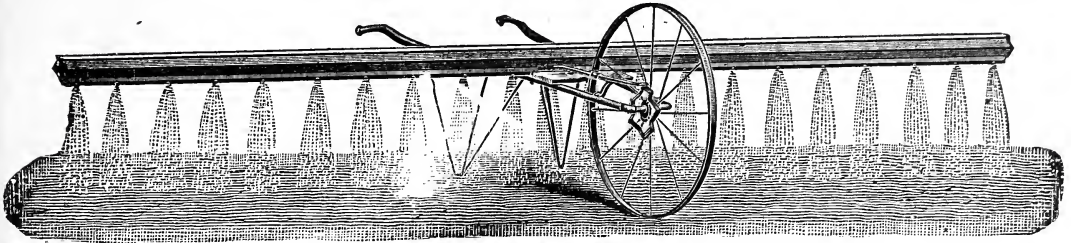
No. 300

We Equip Stables Completely

All of our goods are made of the very best of material by workmen who take a pride in their work. With ordinary usage they will last a lifetime.

WRITE FOR DISCOUNTS

WHEELBARROW SEEDERS



WITH WOOD OR IRON FRAME.

They can be worked by anyone who can run a wheelbarrow,
Price, 14-foot, \$6.00; 16-foot, \$7.00.

THE LITTLE GIANT SEED SOWER

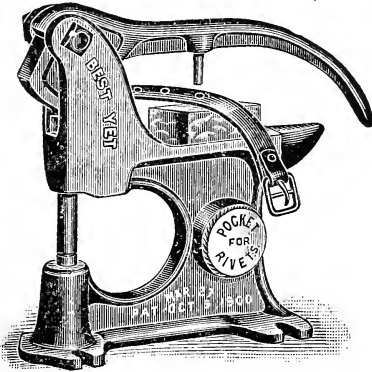
This is the cheapest Crank Seeder on the market, and equal to the best for quality of work it does and durability. Don't pay \$5.00 for a seeder when you can get its equal for less money.

Will sow Wheat, Oats, Rice, Flax, Millet, Turnip Seed, Clover Seed, Grass Seed, including Light grasses; in fact any kind of Seed broadcast. Also Plaster, Fertilizer, Salt, Ashes, etc.

They save one-third seed and two-thirds labor.

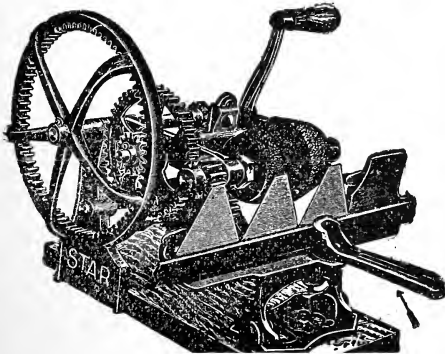
CRANK SEEDERS	-	-	-	\$2.00
FIDDLE SEEDERS	-	-	-	\$1.50

THE "REX" RIVETER



THE BEST.

The cheapest, most durable and the most Practical Riveting Machine on the market.
Price 50c and 85c.



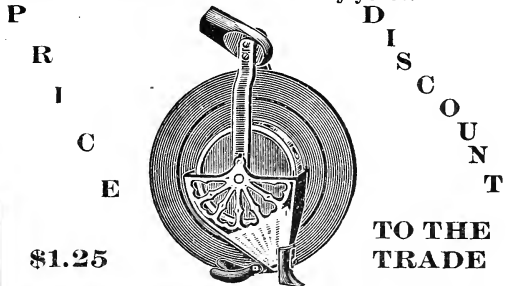
STAR SICKLE GRINDER, \$5.00



Eureka Kitchen Garden Seed Drill and Hot Bed

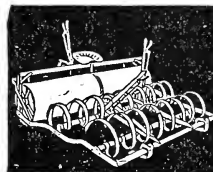
It will sow and cover Beets, Cabbage, Carrots, Celery, Lettuce, Onions, Radishes, Spinach, Turnips, and all such seeds with the greatest regularity. Force Feed. It is only intended for small Gardens and Hot Houses.

Sows up close to the sides in straight rows. Sows the small packet of seed as well as a larger bulk. This Drill is not a toy, but a strong, practical machine that will last many years.



\$1.25

TO THE TRADE



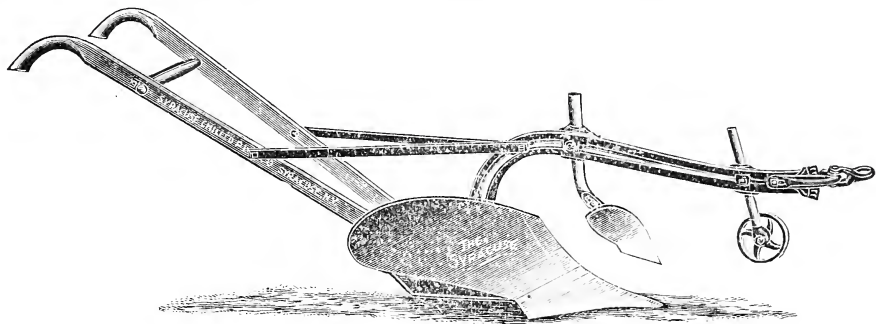
Imboden's Harrow on free trial, without money in advance. Return at our expense if it does not please you. Fixtures to use Harrow and Roller separate and to make a riding cultivator. Guaranteed combined to give 50 per cent. better and nicer seed bed in half the time. Field looks like a garden, no foot prints are left. Can see check marks easier. Saves 1 team, and no heavier draft. A boy can do the work and ride. Operate teeth any depth, is ready in a second to move. Hundreds of them in use since 1900. Just ask for reports, description, price and terms.

Sold by F. H. EBELING.

Price \$38.00.

SYRACUSE CHILLED PLOWS

These Plows are so well known that no word of introduction is necessary. We are pleased to offer their full line to our farmers at the usual prices.



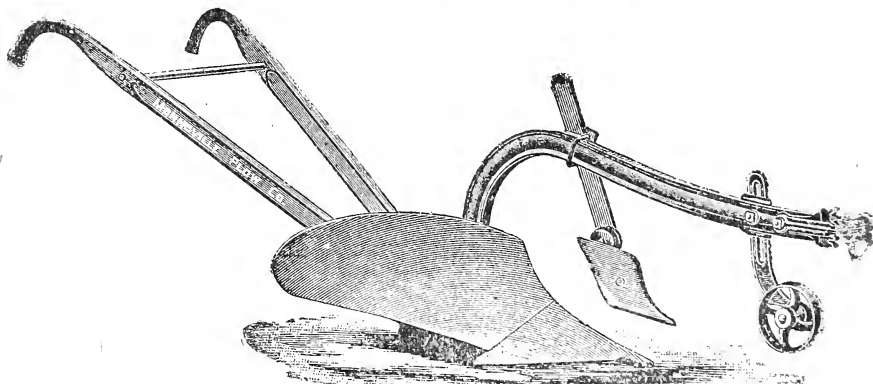
Syracuse Steel Beam Chilled Plow

Made in three sizes, No. 401, No. 402 and No. 403
Chilled Wearing Parts, Light, Strong, Durable

No. 403—Light Two-Horse, furrow 4 to 6 inches deep, 9 to 12 inches wide.....	\$12.50
No. 402—Medium Two-Horse, furrow 5 to 7 inches deep, 11 to 14 inches wide....	14.50
No. 401—Large Two-Horse, furrow 5 to 8 inches deep, 12 to 15 inches wide.....	13.00
No. 31—Large Two-Horse, furrow 5 to 8 inches deep, 12 to 15 inches wide.....	14.50
No. 32—Large Two-Horse, furrow 5 to 8 inches deep, 12 to 15 inches wide.....	14.00
No. 61—Large Two-Horse, furrow 5 to 8 inches deep, 12 to 15 inches wide.....	14.00
No. 62—Large Two-Horse, furrow 5 to 8 inches deep, 12 to 15 inches wide.....	14.00
No. 31-39—Reversible Sulky, 3-horse hitch.....	55.00

MUNNSVILLE PLOWS

No. 10, Steel Beam Plow—"The Big Seller"



This Plow is long on the run with a high moldboard, of a shape that insures easy draft, good cleaning qualities and pleasing appearance. Price \$14.50.

ONEIDA VALLEY CLIPPER NO. 2½

A light one-horse cast steel Plow, adapted to plowing out corn, hops and nurseries. Can be gauged so as to plow to and from the rows.

Price, \$11.50 Plain. No. 2½ Chilled, \$11.00.

The Munnsville Plow Sulky with Riding Attachment

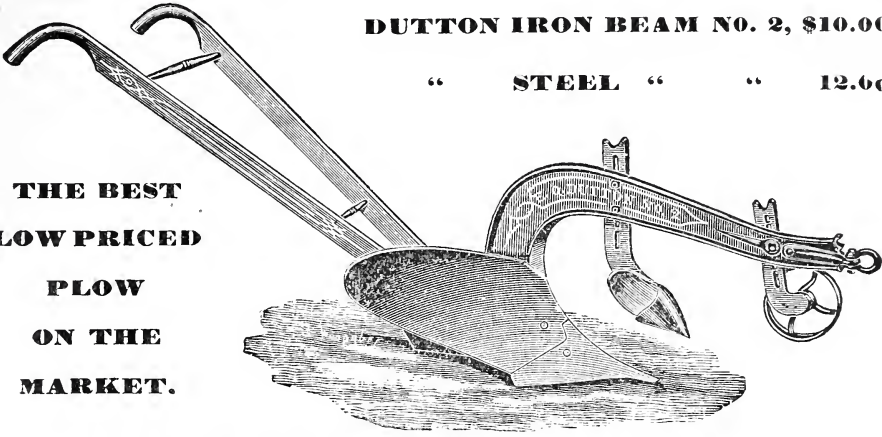
With Plow Complete, \$28.00. Riding Attachment Only, \$15.00.

Dutton Steel and Chilled Plows

DUTTON IRON BEAM NO. 2, \$10.00

“ **STEEL** “ “ **12.00**

**THE BEST
LOW PRICED
PLOW
ON THE
MARKET.**

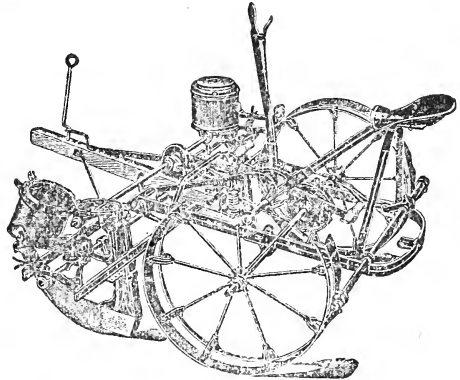


DITCHING PLOWS, PRICE \$10.00

Black Hawk Corn Planter Two Row Planter

This planter is so simple that it is almost an impossibility for it to get “out of fix”. It is the easiest machine to adjust you ever saw.

Did you ever notice that kernels of corn, while varying greatly in size, are just about uniform in thickness. This is the principle of the Black Hawk Corn Planter—the drop works on the “edge selection” principle. This drop principle is the most accurate of any yet conceived. The valve mechanism is entirely enclosed within the shank so it cannot be affected by corn stalks or other trash. No matter how fast you drive the team the corn is forced out of the heel in perfect check, and there can be no clogging. Whether for hilling or drilling it's always ready—no change of valves and no change of plates for the distance you will use. The foot drop is always ready and its position is just where you would put it if you made a corn planter. While the front and back frames are extremely rigid, there is a spring connection between the two which allows the planter to follow unequal the surfaces of ground.



Complete, with Fertilizer Attachment, Price, \$55.00

Bargains in Tools and Implements

We offer at an especially low price the following list of tools and implements—every one of which is a genuine bargain and can be seen at our warehouse. Some of these have been somewhat used.

One Johnson Mower, 5-ft.
Two No. 2 Osborne Mowers
One Shovel Plow
One Empire Junior Drill 10x7 Spring Hoe
One Empire Junior 11x7 Hoe
One Keystone Weeder
One Kentucky No. 10 Disk Corn Planter
Three Six Fork Sterling Tedders
One Eight Fork Sterling Tedder
One Gale Peg-tooth Harrow
One Boston Combination Harrow
One Sterling Side Delivery Rake

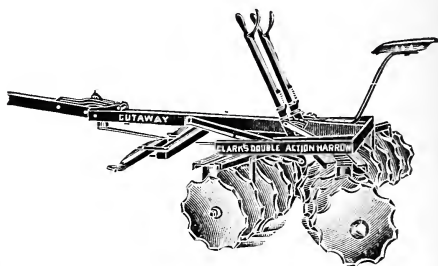
Two Sterling Hay Loaders
One Castile 17-tooth Spring Harrows
Two Walter A. Wood Tedders
One Sulky Plow
One 14x16 Spading Harrow
One 14x16 Solid Disk Harrow
One Moline Potato Digger
One Ridging Roller
One Manure Spreader
One Roller-Harrow combined
One Prout Hoe

CLARK'S DOUBLE ACTION CUTAWAY HARROW

Cutaway

(CLARK)

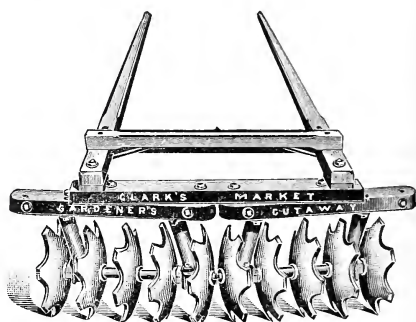
The CUTAWAY (CLARK) DOUBLE ACTION HARROW has rigid main frame which holds the disk gangs to their work, cutting every three inches, thoroughly cultivating the soil and killing out all foul growth. It has jointed pole and there is no weight on the horses' necks. The tip pole can be removed in a minute's time, making a perfect tongueless harrow. No tongue truck is needed. It is made in sizes from one-horse up to engine size, and with extension head for orchard work.



The CUTAWAY (CLARK) GROVE HARROW is a very popular tool for market gardening and is very effective. The disk gangs can be easily reversed.

Remember that all Clark's Grass Tools are ready for you whenever the frost is out of the ground. This applies especially to our Double Action Cutaway Harrow and Clark's 26, Reversible Cutaway Sulky Disc Plow.

A-4 Cutaway.....	\$33.00
A-5 Cutaway.....	35.00
A-6 Cutaway.....	40.00
Reversible Sulky Disc Plow.....	35.00
Bush and Bog Plow.....	55.00
Clark's Grove Harrow.....	22.00
Cultivator and Harrow.....	40.00

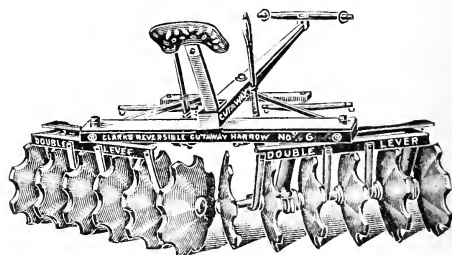


CLARK'S COMBINED CULTIVATOR AND HARROW

This machine is built to be used equally well as a harrow, a disk cultivator or as a listing cultivator. Do not confuse it with the regular A-4 Double Action Harrow—as it is altogether different. This machine has a perfect center draft at all times which is furnished by a special hitch. The machine is handled by two light horses.

When you use this machine as a harrow it cuts $4\frac{1}{2}$ feet wide; as a cultivator it will cultivate crops up to 20 inches high in rows $3\frac{1}{2}$ feet or more apart. The gangs may be set up to 17 inches apart. As a cultivator it may quickly and easily be adjusted to throw dirt toward the plants or to leave the dirt where it is.

This Double Action Cutaway is regularly fitted with jointed pole and two-horse hitch, has sixteen 16-inch disks. The two large disks for listing are extra. This machine weighs, ready to ship, 438 pounds.



Price \$40.00.

All of CUTAWAY (CLARK'S) tools have hardwood journal boxes soaked in oil, special FORGED disks, and are fitted with hitch ready for use.

Ask for their catalog, "The Soil and Intensive Tillage," and booklet, "As Told by Others." They have a tool for your particular needs and you cannot afford to be without it.

THE KEYSTONE ADJUSTABLE FLAT-TOOTH WEEDER

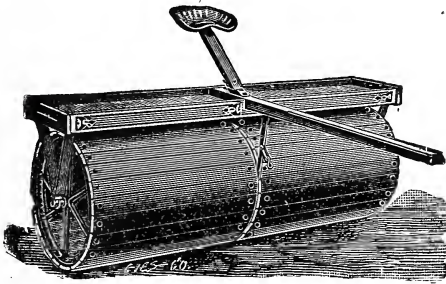
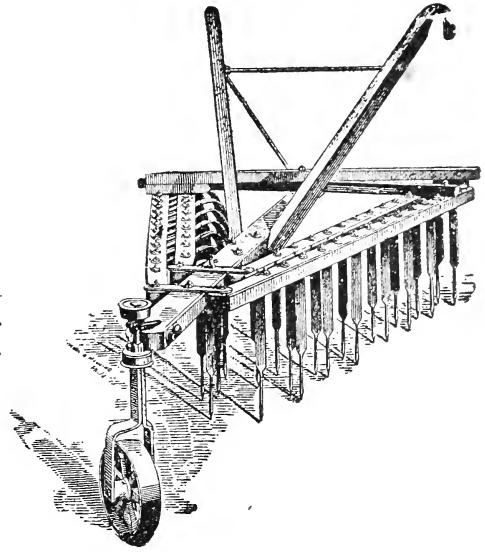
(The Keystone Adjustable Flat-Tooth
Weeder narrowed to 30 inches.)

This is the most useful and practical
Weeder of the many Weeders on the market.
Every gardener and farmer should have one.

Weight, 97 Pounds

Price \$14.00

Can be expanded to 7½ feet if desired.



LAND ROLLERS

Oak Stave Roller, two sections.....\$22.00

Steel Roller, 26 inch, two sections, with
closed ends.....\$28.00

Lawn and Garden Roller.....\$8.00 to \$12.00

These Rollers are made of the best material and made near home. All parts can be easily supplied.

Acme Pulverizing Harrow, Clod Crusher and Leveler

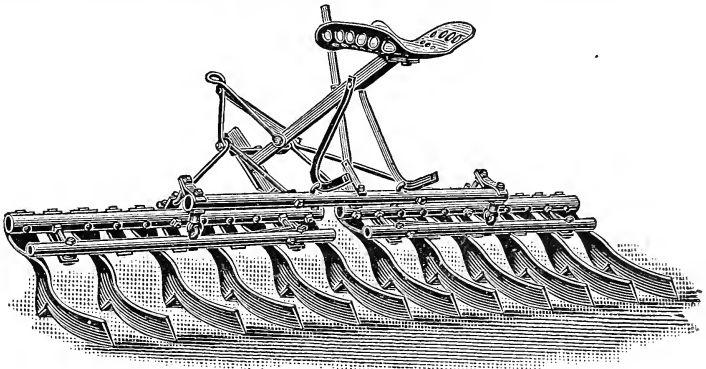
STANDARD 2-ROW RIDING HARROW

Lightest Riding Harrow sold anywhere. Low in price, light in draft, most easily handled.

Cuts, crushes, turns, smooths and levels, all in one operation.

6 ft. 6 in. Two Horse Size.

PRICE \$16.00



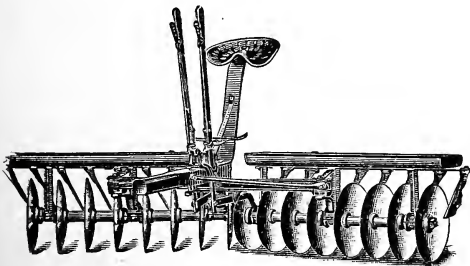
RIDING DISK HARROW

For Two Horses

THE GREAT LABOR SAVER

Every Farmer Should Have One.

PRICE\$25.00



NATIONAL FIRE PROOFING COMPANY NATCO IMPERISHABLE SILO

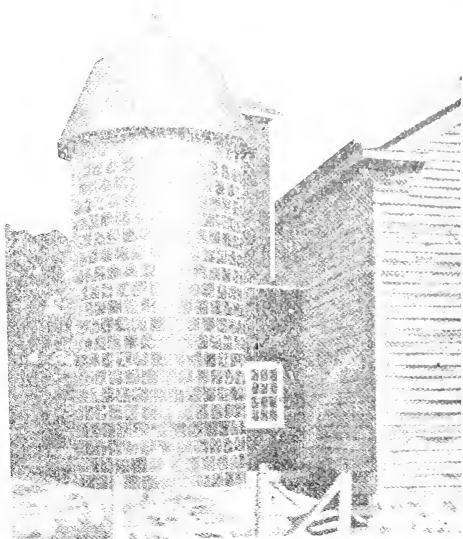
(Patented)

Here's the new type of silo—the silo that has raised the standard of quality of ensilage for feeding. The silo whose walls are moisture proof and air tight and consequently keep ensilage from becoming sour, moldy or rotten.

THE NATCO IMPERISHABLE SILO is built of hollow vitrified-clay tile, reinforced by two continuous steel bands between each layer of blocks. There are no staves to warp, shrink or split. No hoops to tighten. No continual repair bills. Never needs painting. The Natco Imperishable Silo is Weatherproof, Decayproof, Fire-resisting.

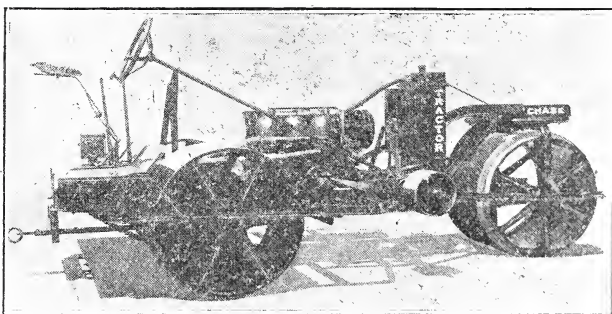
It will last a lifetime and the first cost is practically the last cost. It can be erected by any mason as easily as a carpenter builds the old type of silo. When completed you have a very attractive as well as an efficient and durable silo added to your permanent farm building assets.

WRITE FOR FREE SILO BOOK. We have an attractively illustrated book which we will be glad to send free to Cornell men or to any farmer interested in keeping ensilage fresh, sweet and succulent. Write for a copy now and names of owners of Natco Imperishable Silo in your locality.



CHASE FARM TRACTORS

Put your farm production on an economical basis. You can't compete with the progressive farmer with your old-fashioned horse and hand power methods.



Replace eight to ten horses with a Chase Farm Tractor and plow an acre an hour. Use your old horse-drawn tillage implements.

HARD BUYERS ARE BUYING

CHASE FARM TRACTORS

FOR

Hard Buyers stand pat on having a tractor that will do all their farm work at less cost than horse and hand power. They get a thorough demonstration before they invest their money.

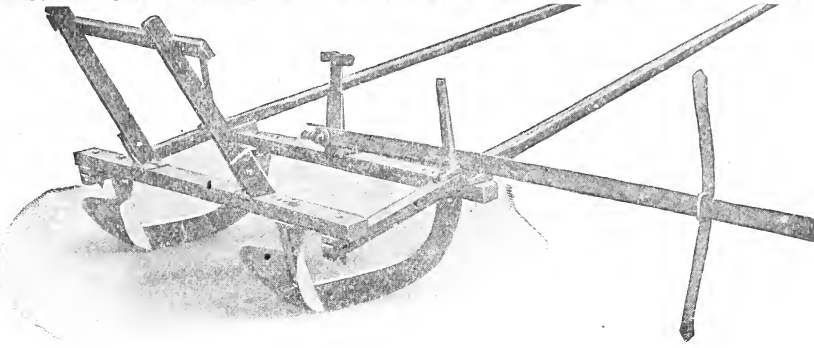
Chase Farm Tractors are doing every kind of farm work for Hard Buyers—from plowing and harrowing to threshing and silo filling. They are even being operated by farm boys.

The Chase Farm Tractor is built by men who have successfully built farm implements—successfully built the most popular motor truck in use.

They invite your thorough investigation and will give Hard Buyers a satisfactory demonstration. For sale by

F. H. EBELING, REPRESENTING THE CHASE MOTOR TRUCK COMPANY.

THE IMPROVED THREE-ROW CORN MARKER



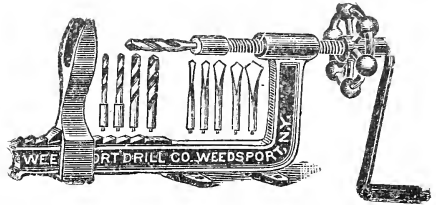
This cut shows our Steel Wing Marker. The runners are long, which enables it to make true and even mark. It is adjustable to mark any width row and any depth desired

Two-Row Marker for one horse, \$7.00. Three-Row Marker for two horses, \$8.50.

Bemis Transplanter

Sets all kinds of plants like cabbage, tobacco, etc. The success of plant setting is assured by its use. The most successful planter on the market. Made near by, and all parts supplied on a few hours' notice. **Price \$65.00.**

FARMERS' COMBINATION CLAMP AND DRILL.



\$2.25 with Diamond Point Drills.

\$3.00 with Syracuse Twist Drills.

The lowest priced first class article of its kind on the market. Can be used as a wood clamp, also a bench vice, or hand drill.

Extra Drills 10c each.

Extra Drills 25c each.

The Prout Hoe

This very practical Tool deserves greater attention from our farmers on account of its great value as a furrower, a coverer and a hiller, all combined. This is so simple, handy, practical and such a labor-saver that every farmer should own one, but will do the work of three men and much better. Price \$15.00.

Orchard King Pruning Shear

A Knife that will interest anyone that does Tree Trimming

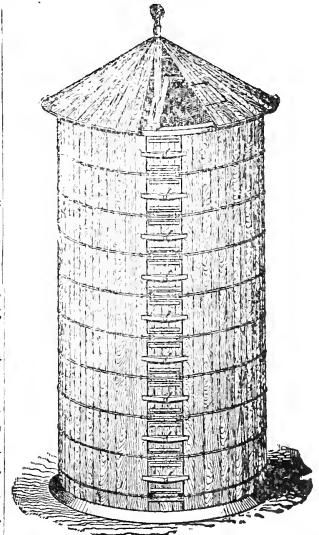
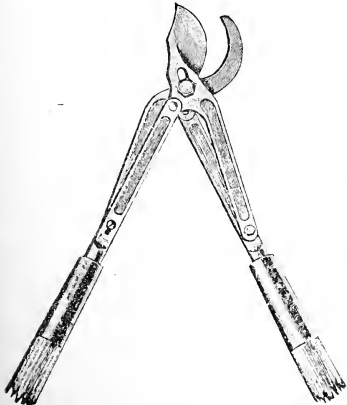
No other PRUNING SHEAR will take off a live limb that is 1 3/4 or 2 inches in diameter. Ours with its COMPOUND LEVERS, DOUBLE DRAW CUT, and ROLLER BEARING, will do it so easy that it will surprise you.

In doing work where ease makes speed, is not only saving time but conserving energy, a factor worth considering in all things at all times.

The material used is the finest that the market affords. The working parts are high carbon crucible steel, perfectly tempered.

This knife is guaranteed. Any part returned to us, charges prepaid and showing any defect will be replaced without cost.

PRICE \$3.00

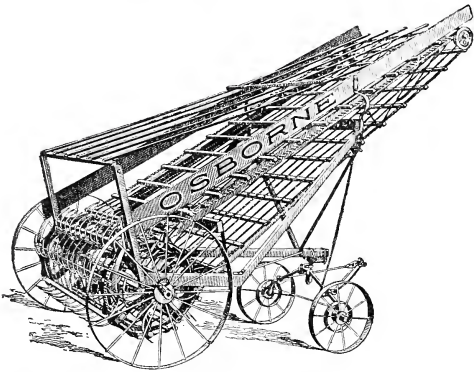


The Tonawanda STANDARD SILO

is the best and lowest priced.

Ask for catalogue

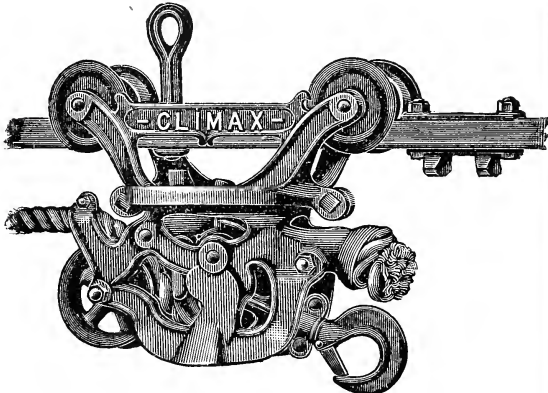
THE OSBORNE WINDROW HAY LOADER



The Osborne is a remarkably simple loader—in fact, it would be difficult to imagine a more simple loader. The entire mechanism of this loader consists of a gathering drum, which picks up the hay, and an elevator carrier, the elevator carrier is operated by the gathering drum.

The gathering drum is fastened to the main axle and is driven by both wheels. As a result of this construction, the gathering drum is raised and lowered with the wheels in passing over dead furrows and uneven ground. This insures all the hay being gathered irrespective of the condition of the ground. A wind break is provided, which prevents the hay from being blown from the carrier; the wind break is very effective and automatically adjusts itself to different conditions of hay. A tightening device allows the tension of the carrier to be properly adjusted. The Osborne loader is equipped with a fore carriage which carries a part of the weight of the loader.

This relieves the loader of the twists and strains which would result were no fore carriage used. It also makes it unnecessary for the loader to be lifted when being connected to the wagon, as the hitch may be moved to any position. It permits the driver to disconnect the loader from the wagon without requiring him to get down off the load. When the load is complete he simply pulls the rope which extends up to the top of the load from the hook on the fore carriage. When disconnected from the wagon the loader is held in an upright position by the fore carriage. Loader can be used with any height of farm wagon without any readjusting or changes.



THE NEY CLIMAX OPEN THROAT CARRIER.

With this carrier, it is possible to fill the mow closer to the comb of the roof than with any other carrier on the market. The throat has an exceptionally large opening, and the simple locking mechanism is so arranged that the lifting head or pulley locks directly on the sides or frame of the carrier, not depending on separate dogs or locks to hold the load. It is constructed and operated without the use of springs, and engages projections upon lifting pulley in a line with axis of pulley. This permits the pulley to swing very near the track and enables the carrier to work under conditions where any other carrier would necessarily fail.

CARBORUNDUM SCYTHE STONES

Do away with the grinding of a scythe altogether. They produce a clean, sharp edge and do it faster and easier than it could be done on the best grindstone ever made.

Carborundum Scythe Stones must not be classed with the ordinary scythe stones that you have been accustomed to. The old style stones are merely sandstone and are of very little use. They simply RUB the edge into shape—Carborundum CUTS it—cuts it fast and clean and puts an edge on your scythe that will be a revelation to you. **Price, 25c.**

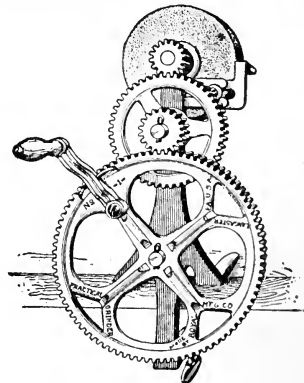
REVERSIBLE HAY CARRIERS. For either Steel or Wood Track.

Light and Durable. Runs either way on the track without changing.

Price, \$4.50.

Ney Hay Car, steel or wood track	\$4 00
Climax Car, open throat	4 00
Double Harpoon Forks	1 25
Double Harpoon Alfalfa Fork	5 00
Steel Track per foot	11
Pulleys in Wood and Iron, each, 25 to 45	
Hanger Hooks, doz.	75
Brackets, doz.	50
Floor Hooks, each	10
Tedder Teeth, each	30
Horse Rake Teeth	25
Rope, best Manila, at lowest prices.	
All Steel Hay Tedder	36 00
Osborne Rake	22 00 to 25 00
New Yorker Horse Rake	22 00 to 24 00
We carry Haying Tools of all kinds.	
Also Teeth for all Rakes and Tedders.	

CARBORUNDUM GRINDSTONES

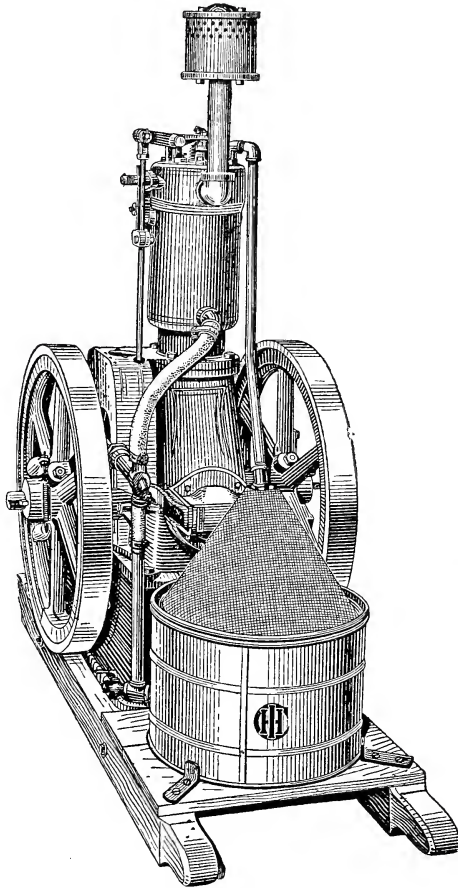


This has taken the place of all Grinding Stones where quick results are desired. Prices based upon size.

OSBORNE GAS AND GASOLINE ENGINES

TO OPERATE ON GAS, GASOLINE, NAPHTHA OR ALCOHOL
AIR COOLED 1-HORSE POWER, WATER COOLED 2, 3, 4 AND 6-HORSE POWER

These engines are the same as the stationary type, but are mounted on substantial wood skids. This is a very desirable feature for farm work as they can be moved from one job to another. Contractors also find this type convenient for operating pumps, concrete mixers, wood saws, and other small machinery. If used for stationary work, the skids can be easily removed and the engine bolted direct to the floor or foundation. The mixer is designed to operate



on gasoline or naphtha. Special mixers for gas or alcohol furnished on special order.

Equipment: Galvanized steel gasoline tank in base of engine, galvanized steel cooling tank, one regular size pulley, muffler, tool and battery box with tools and batteries, cylinder lubricator and oil can, all mounted on substantial wood base.

Magneto, auto spark, friction clutch pulley and special mixers furnished on special order.

**MOWERS
HORSE RAKES
LIME SOWERS**

**GRAIN REAPERS
HAY LOADERS
FARM WAGONS
SIDE DELIVERY RAKES**

**GRAIN BINDERS
HARROWS
FARM GEARS
FARM RAKES**

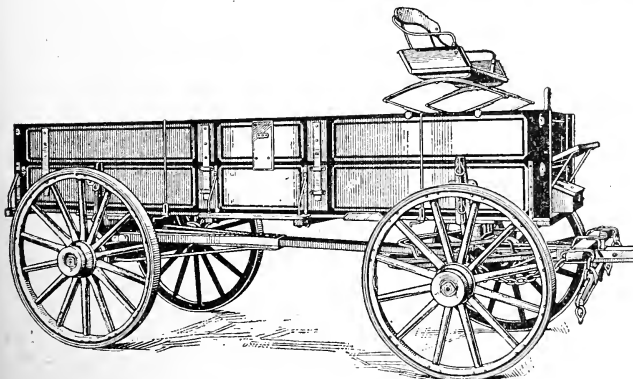
**CORN HARVESTERS
GRAIN DRILLS
FARM TRUCKS**

We also carry in stock at our warehouse the celebrated **STERLING FARM WAGON** and **FARM TRUCK**. The new **BETTENDORF FARM WAGON** and **FARM TRUCK**.

The Sterling is a moderate priced wagon and fills the needs of our farmers who want a strong, practical wagon for all around purposes at a price within the reach of all.

* Farmers interested in Wagons can save money by calling at our store or at our warehouse, 538 Canal Street.

We will guarantee to save you money on any wagons purchased of us.

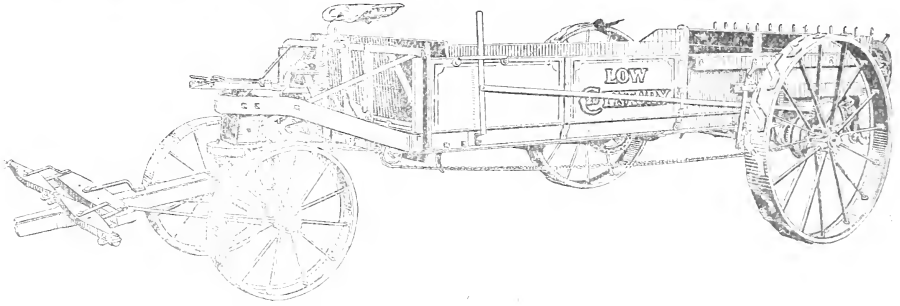


Steel King Wagon

Sold With or Without Boxes
**BUY A WAGON WITH
ADJUSTABLE STAKES**

When you want longer or shorter stakes on a Steel King Wagon, all you have to do is to remove a bolt, adjust the stake to 8, 10, 12, or 14 inches in height, and replace the bolt. The stake is then just as solid as if it were built in place at that height. This is one convenience that every Steel King user enjoys. What do you think of it? The stakes are steel, built in the shape of an "I" beam, for which there's a reason; we'll tell you when you come in.

LOW 20TH CENTURY MANURE SPREADER



The Low 20th Century is a low down Spreader and has all the advantages that go with a spreader of low-down construction. However, the Low 20th Century has overcome the one great objection in low-down spreaders in that it has sufficient clearance space under the machine to allow it to be used advantageously any place from which and in which a load can be drawn. The driver absolutely gives no attention to the clearance feature. The Low 20th Century is high enough to pass over any obstruction that one would attempt to drive over under ordinary conditions.

The Low 20th Century is manufactured in four sizes. There is a size adapted to the small truck farm, as well as one for our largest farms.

The Low 20th Century Spreader is strong because it is built of steel; the controlling levers, and even the seat, are steel.

The only wood entering into the construction of the Low 20th Century is in the sides of the box, the apron slats, the tongue and beater rails. The Low 20th Century is built for service and durability; this is the reason for so much steel being put into it.

The Low 20th Century spreads evenly on the turns; it has a differential similar to that found in the hub of the Osborne Mower wheel, which allows one wheel to hold the pivot while making short turns without affecting the action of the beaters.

Syracuse, N. Y., October 17, 1913.

My Dear Mr. Ebeling:—The No. 2 Twentieth Century Low Down Spreader purchased of you is giving the University farm management great satisfaction. It is a positive pleasure to see it work. The draft is easy for such a machine and the distribution even and rapid.

Very respectfully,

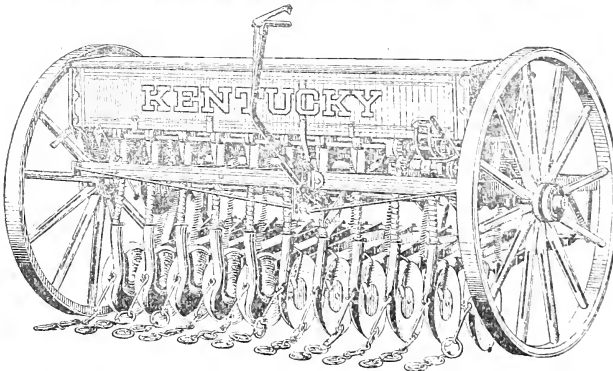
JAMES R. DAY,

Dictated.

Chancellor Syracuse University and Agricultural College.

KENTUCKY GRAIN DRILLS

Kentucky Drills deposit the seed uniformly and cover evenly so that the field does not have thick and thin patches to cause unequal growth. This insures uniform results and a larger yield.

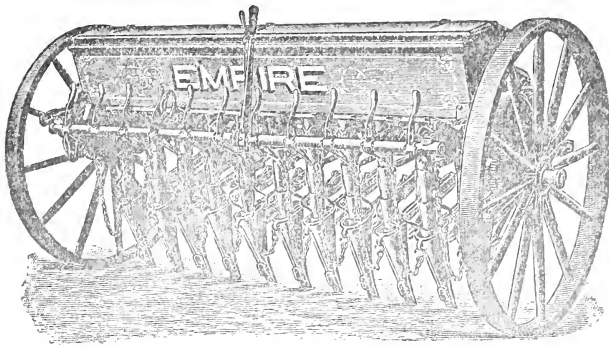


The Kentucky line is complete and comprises grain, fertilizer, and corn drills. When you buy a Kentucky Drill, you get one that has been built especially for your particular locality, and therefore is the drill best suited for your work.

Kentucky Fertilizer 11 x 7 Open Delivery Single Disk Drill, equipped with Internal Grain Feed and Star Fertilizer Feed

On the Kentucky Fertilizer Drill the quantity of fertilizer can be varied from 40 to 1,135 pounds to the acre. You can make this variation in feed without stopping the team. That is a drill feature worth having, but read on. Instead of depending upon the hopper for support, Kentucky drill grooves hold up the hopper. The Kentucky feed yoke is in one piece, therefore it is impossible for the pinions to get out of line. You know what that means.

Kentucky internal or Double Run grain feed cups sow all kinds of grain, as well as corn, large peas, Lima beans, red kidney beans, etc.; cup consists of but four parts, held by one bolt, which may be tightened to take up wear.



Empire Drill

The oldest farmer who reads this reference book of time-savers and labor-savers, cannot remember when the Empire Drill was not looked upon as the most reliable. It has kept pace with modern life and as soon as a real practical improvement has been invented it has first been annexed to the Empire Drill. The Empire sows perfectly all kinds of grass seeds and grains and the fertilizer attachment from any viewpoint cannot be equalled by any other on the market.

Price for 9-Tube Drill, \$80.00.

Price for 11-Tube Drill, \$90.00.

FARMER'S

FAVORITE

COOKERS



Heating drinking water for stock. Syruping down. Boiling cider. Preserving and evaporating fruit. Sugaring off. Boiling sap. In addition to the above, by using a top plate in place of the boiler it converts the cooker into a first-class stove for warming a milk room, hog house, poultry house, cellar or shop. Can you think of any other farm implement that can be used for so great a variety of purposes? The farm equipment is incomplete without one of these cookers.

Add \$3.50 for grate, for coal or coke

Size boiler. Size Fire Box. Price.

No. 2	30 gal.	.22x21x13	1 2	.24	Incnet	\$11 00
No. 3	40 "	.22x30x14		.30	"	12 00
No. 4	50 "	.22x36x15		.36	"	13 00
No. 5	65 "	.22x48x17		.43	"	15 00

The Farmers' Favorite is used for a great variety of purposes, such as cooking grain and vegetables for stock and poultry. Heating water for scalding hogs and poultry. Baling spraying mixture. Heating water on wash day. Heating water for washing dairy utensils. Rendering lard and tallow. Boiling sorghum.

The Chatham Fanning Mill

The secret of big crops is planting Pure, Healthy, Fat Seed!

The way to get such seed is to own this magic machine—the Chatham Mill. It's the greatest money-making farm machine on earth.

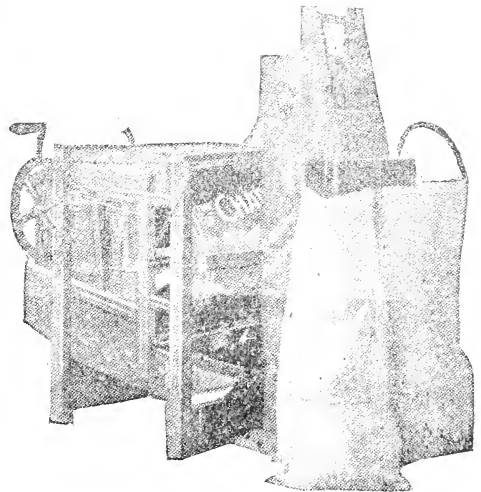
GRAIN GRADER, CLEANER AND SEPARATOR

Handles Wheat, Oats, Corn, Flax, Buckwheat, Timothy Seed, Clover Seed—in fact, any grain or grass seed. Cleans, grades and separates all at one operation. Makes you independent—puts an end to planting foul, dirty seeds that grow poor crops and weeds. The "Chatham" handles 60 bushels per HOUR. Runs by hand or gas power.

Over 250,000 "Chathams" are now used on farms—they are recommended by every Agricultural Authority in the country. They make farming easier and a great deal more profitable. Price \$33.00.

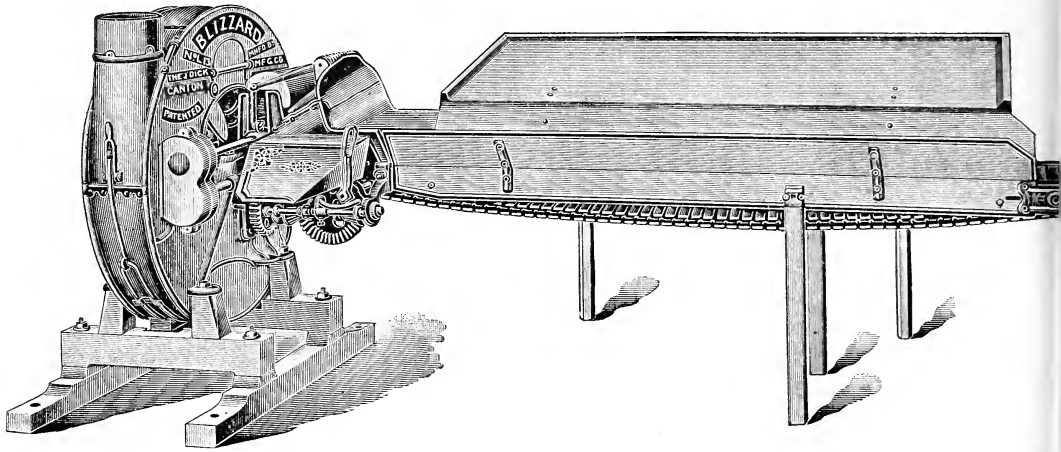
With Bagging Attachment, \$38.00.

E. B. Ford, Branchport, Yates Co., N. Y., won the first prize on Red and White Wheat at the Syracuse State Fair 1914, and which was graded and recleaned with one of our celebrated Chatham Fanning Mills. "A word to the wise farmer is sufficient."



DICK'S NEW IMPROVED "BLIZZARD" CUTTER

With Superior Self-Feed Table. Also with Plain Feed Table



The Blizzard is an entirely new departure in feed and ensilage cutting machinery, and we feel safe in stating that owing to the numerous points of merit in this combined machine for cutting, splitting or shredding feed, and elevating it by means of a pneumatic conveyor and deflector, the Blizzard excels all others of its class.

The gearing on this improved machine is 50 per cent stronger and has much more wearing surface, while the shafts for feed gears are larger in diameter; in fact all the parts throughout are made much heavier and stronger, and can stand more strain and extended service than the former style "Blizzard." These machines are now constructed with a third bearing for main shaft; the important feature of this improvement is that it supports the main shaft on the outside of belt pulley overcoming the strain of the drive belt, and by this device it cannot spring the main shaft, which remains absolutely in line with the remaining two bearings. The feed table can be detached before removing from the machine, by simply lowering the rear end of the table and lifting it out of its fastenings. We claim that the "New Improved Blizzard" is ahead of all ensilage and feed cutters on the market today.

No.	Length of Knives	Capacity per Hour Green Ensilage	Steam Power Required	Speed Revolutions	With Traveling Table Price
L 9	11½ in.	4 to 6 tons	3½ to 5 H.P.	900 to 1100	\$ 97.00
L 11	14 in.	5 to 8 tons	4 to 7 H.P.	800 to 1050	119.00
L 13	16 in.	7 to 12 tons	7 to 10 H.P.	650 to 1000	155.00
L 15	18½ in.	9 to 14 tons	8 to 12 H.P.	600 to 950	196.00

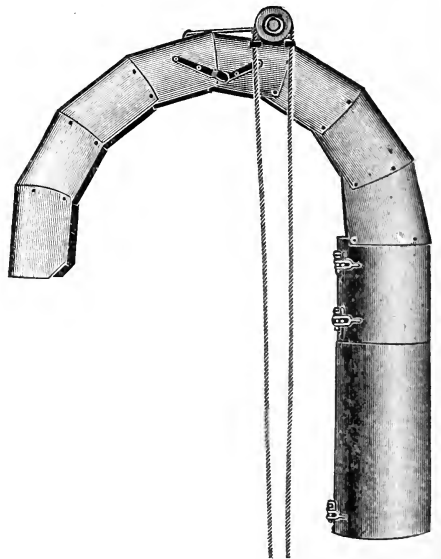
Wagon trucks complete for mounting and transporting above cutters, for Nos. 9 and 11, \$35.00; for Nos. 13 and 15, \$39.00.

Price of cutter does not include pipe, angle clamp joints or deflectors.

For No. L 9	
6-inch Galvanized Pipe, per foot.....	\$.46
6-inch Deflector for end of pipe.....	8.00
For No. L 11	
7-inch Galvanized Pipe, per foot.....	\$.50
7-inch Deflector for end of pipe.....	8.00
For No. L 13	
7½-inch Galvanized Pipe, per foot.....	\$.52
7½-inch Deflector for end of pipe.....	8.00
For No. L 15	
8-inch Galvanized Pipe, per foot.....	\$.55
8-inch Deflector for end of pipe.....	8.00

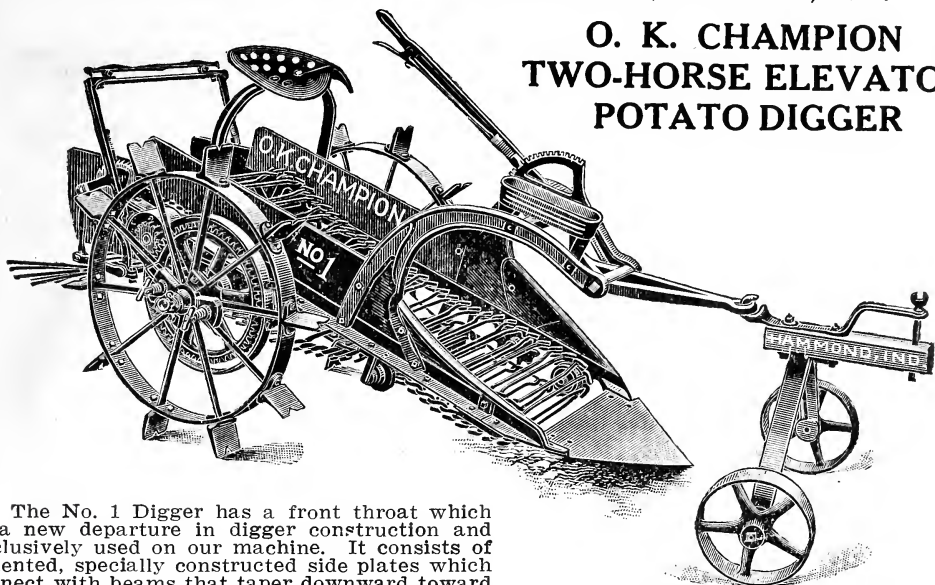
With Flexible Distributing Pipe for Inside Silo

A new sectional distributing pipe used in connection with regular improved Silage Distributer. At end of the Distributer on two adjustable iron rods is attached a Hopper which in turn supports the sectional pipe. The device used for locking the pipe sections together is strong, durable, simple in construction, and what is of equal importance, makes the pipe very flexible. Price \$1.65.



Patent Deflector

O. K. CHAMPION TWO-HORSE ELEVATOR POTATO DIGGER



The No. 1 Digger has a front throat which is a new departure in digger construction and exclusively used on our machine. It consists of patented, specially constructed side plates which connect with beams that taper downward toward the front, curving outward along the upper edges and along the top flare. This makes the throat opening wider than the body of the machine, allowing the dirt to spread and lose itself more freely when first entering. It also forces the vines and weeds to slide up more easily and overcome the serious trouble of clogging. The inward extending base to which the shovel is bolted makes the opening absolutely rigid and strong.

The shovel blade, 20 inches wide, is made of the highest grade crucible steel, shaped and ground to scour in any kind of soil, and is so fastened that its position makes it possible for the dirt and crop to slide up with the least resistance. The elevator apron is of three-eighths inch round extra high carbon steel.

This Digger is designed and built to embody every important point of construction which insures freedom from breakdowns, costly waits and expensive repair bills. It is adapted to the various duties which may be imposed upon it and will meet successfully the broad variance of conditions under which it may be worked. Its strength, simplicity, durability, capacity and economy are the vital factors which should receive consideration. It is strictly a Two-horse Elevator Digger; two ordinary horses will do the work with ease.

O. K. CHAMPION POTATO DIGGER NO. 2

The No. 2 Machine is in design exactly as the regular No. 1 Digger, varying only in size and dimensions, the elevator being two inches wider and ten inches longer, all other parts being built proportionately larger. This Digger has a very large capacity, the separating space being approximately fourteen square feet, which fact makes it especially adapted for heavy soil.

The principle of construction has proven to be correct and any grower who is in need of a machine with larger capacity than the regular No. 1, will surely find his wants supplied with this digger.

Dimensions:—22 inches between sides; equipped with patented front throat which allows the dirt to spread twenty-six inches; main wheels 35 inches high, fitted with removable lugs. The front truck is of the swivel type and makes turning to any angle or distance very easy.

O. K. CHAMPION POTATO DIGGER NO. 3 WITH EXTENSION ELEVATOR A HIGH-CLASS, DURABLE AND EFFICIENT MACHINE

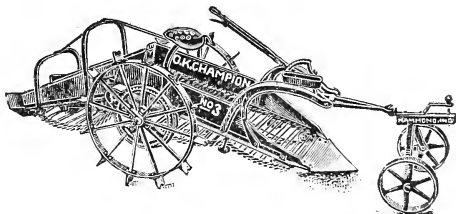
This Digger is constructed with the view of producing the best results with the least mechanism so as to avoid complication and cause as little friction as possible. It is amply strong for any soil or condition of field; its capacity sufficient, having over fifteen square feet of separating space. Its simplicity is one of the main features because it lessens the possibility of wear and breakage.

The Elevator is an endless link chain, constructed of $\frac{3}{8}$ -inch round, high carbon, crucible analysis spring steel. This is the best material that can be obtained for this purpose. The links of this chain are alternately raised and lowered, a feature original with O. K. Champion Diggers, which materially adds to the separating capacity without increasing the resistance and thereby greatly reducing the power requirements. Two sets of oblong sprocket agitators are provided which supply the chain with a continuous agitation while in motion.

The Shovel Blade is of crucible hardened plow steel, with short heel that reduces the resistance of the dirt before reaching the elevator, to a minimum. It is rigidly bolted on both sides to the shovel frames that connect with the main beams, the whole being scoop-like in shape so it enters the ground with the least amount of resistance. The Main Wheels are 35 inches high, made of steel, with reinforced cast hubs and are fitted with removable lugs.

Dimensions: 22 inches wide between sides; equipped with patented front throat; main wheels 35 inches high, fitted with removable lugs. The front truck is of the swivel type and makes turning very easy.

PRICES—No. 1, \$65.00; No. 2, \$80.00; No. 3, \$90.00



Sept. 15, 1914.

F. H. EBELING:—

Dear Sir—The No. 1 Champion Potato Digger that I bought of you is doing such good work that I could not get along without it. It works perfectly and I would not be without it for \$100.

GUSTAVE SCHULKE,

Clay, N. Y., R. F. D. 2.

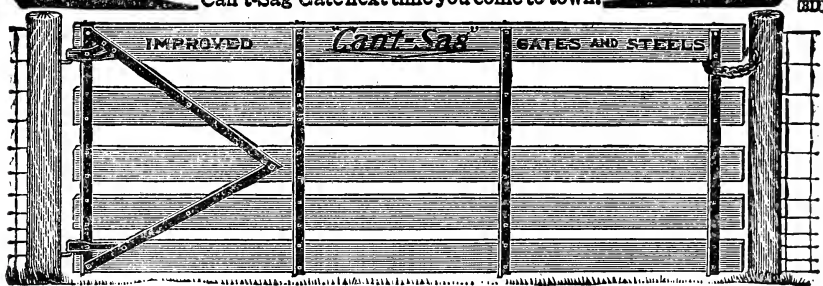
Replace Your Old Gates With The Low Priced "Can't-Sag"

Now is the time to improve the looks and value of your farm by putting up Can't-Sag Gates. Notice how the boards are double-bolted in between 8 angle steel uprights. They can't sag or drag. Stock can see them plainly—won't break them down or twist them out of shape.

The first cost is no more than that of the clumsy short-lived all-wood gates, yet they last five times as long.

Build Your Own Can't-Sag Gates

if you prefer and save money. We sell the complete gates ready to hang or just the Gate Steels, which include 8 angle steel uprights, double truss brace, all bolts, hinges, lag screws, lightning socket-wrench and direction sheet. Come in and examine the Can't-Sag Gate next time you come to town.



CAN'T-SAG FARM GATE

This splendid farm gate does away with all the old gate troubles that have harassed farmers for many years. They will stay just as they are put up. Will not sag, always ready for business, made of best material, and is the only real dependable wood gate on the market. A trial of this gate will introduce a lot more of them in your neighborhood.

14-foot Gate, \$5.00. Steel metal parts for "Can't-Sag Gate," \$3.50

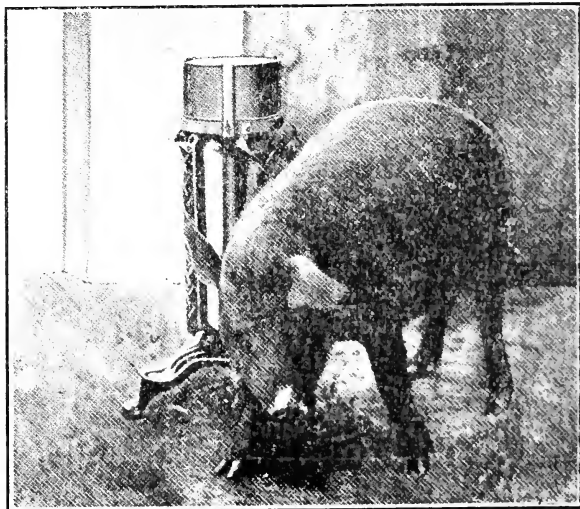
KEEP YOUR HOGS FREE FROM LICE If You Expect to Keep Them Free From Cholera

HOW LICE LEAD TO CHOLERA

The louse that infests your hogs is a crab-like, blood-sucking parasite. It multiplies by the thousands and spreads from animal to animal as they lie together in the pens and yards. Thousands of these tiny vermin are continually gorging themselves with the blood of their victim. Animals in this condition are not only the first to take hog cholera, but once attacked they have almost no hope of recovery.

USE MY RUBBING POSTS 30 DAYS FREE

Let your hogs rid themselves of these blood-sucking pests. Every time they rub against the New Idea Post they apply the refreshing, vermin destroying oil RIGHT ON THE ITCH, killing the lice, destroying the eggs, healing the skin of mange, scurvy and other skin diseases. Every hog on your place becomes a walking disinfecting agent, carrying the germi destroying oil on his body into the pens, sleeping quarters and feed yard. Price, \$7.00.





DANA'S STOCK LABELS

For Cattle, Sheep, Hogs, Etc.

Cattle Labels, . . . 75c dozen, \$4.00 per 100

Sheep and Hog Labels, 50c doz., \$2.50 per 100

Punches for Cattle, \$1.50 each

" " Calves, 1.25 each

" " Sheep and Hogs, . . . 1.00 each

Bull Nose Punch, 1.25 each

The above mailed you upon receipt of price named.



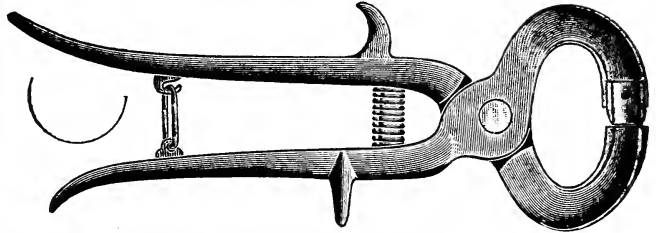
Banner Root Cutter HAND AND POWER



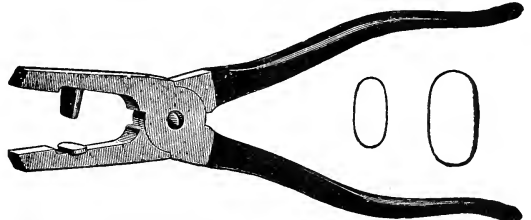
Has a capacity of 30 to 100 bushels per hour. One bushel per minute has been cut as a test, many times.

It saves the price of a cow, as they cannot choke when fed on roots cut by this machine.

No. 20 \$8.00; No. 30 \$15.00



Dana's Bull Nose Punch.



Dana's Cattle and Sheep Punch.

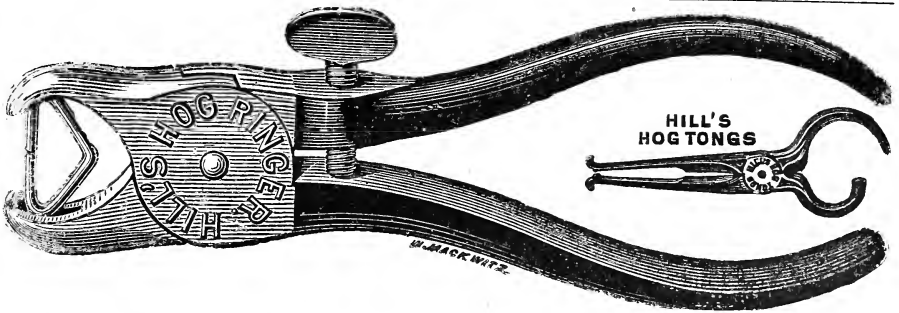
Hog Rings

10 Cents

Per Box.

Hog
Ringer
25 Cents

Hog Tongs
50 Cents



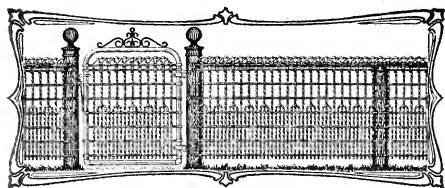
CASTINGS REPAIRED

Cast Iron, Steel and other Metals repaired and mended on short notice by the new welding process. Bring in your parts for repairing. This work can be done on short notice and old or obsolete machinery put into commission through this welding process, enabling farmers to make use of machinery that otherwise would have to be thrown on the scrap heap.

ERRORS

We sometimes make them, so does everyone! We will CHEERFULLY correct ours if you will write us. How can we correct them if you DON'T? Try to write to us good naturedly, but if you can't, write to us anyway. Don't kick to anyone else, or nurse a grievance. If we have ever made an error or offended you, it's only simple justice to us to let us know. We correct our mistakes gladly. If our methods don't appeal to you, help us with criticisms from your point of view. It is inevitable that in business letters hastily written should sometimes rub the wrong way. We may be awkward in expressing ourselves, but our goods are honestly sold and we aim to give everyone a square deal.

WAUKEGAN-CYCLONE SANITARY FENCING



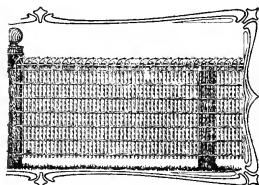
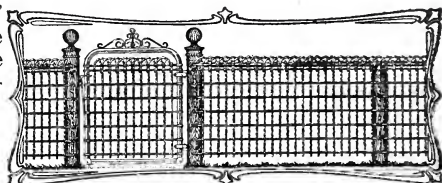
Style "F" is our most popular sanitary fence. Opens up the yard to fresh air and sunlight. Made of heavily galvanized wire. Pickets spaced $1\frac{3}{8}$ " apart at bottom, $2\frac{7}{8}$ " at top. Best heights are 36", 42" and 48". Other heights up to 84" furnished.

Price per lineal foot, Style "F"—36", 11c; 42", 12c; 48", 13c. 3-ft. Gate to match, \$2.50.

Style "L-Extra" is exactly like Style "F" except fewer pickets are used. Pickets spaced $2\frac{7}{8}$ " apart, making fence slightly cheaper. Other heights up to 84" furnished.

Price per lineal foot, Style "L-Extra"—36", 9c; 42", 10c; 48", 11c.

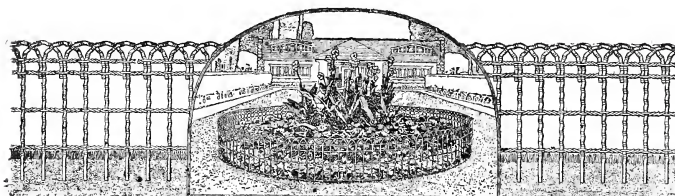
3-ft. Gate to match, \$2.50.



Style "S" is exactly like Style "F" except lower pickets extend clear to top of fabric. This is the closest mesh sanitary fence made. Pickets spaced $1\frac{3}{8}$ " apart from top to bottom.

Price per lineal foot, Style "S"—36", 12c; 42", 13c; 48", 15c.

3-ft. Gate to match, \$2.50.



Flower Guard

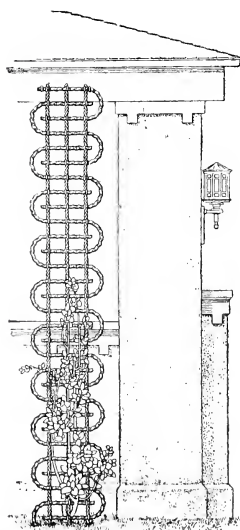
Keeps out dogs and chickens, protects the flowers, fits any shape or size of bed. Bottom of pickets left straight.

Price per lineal foot—16" width, 6c; 22" width, 7c.

Vine Trellis

Easily placed in position, cut to any length, fits any porch, used from year to year. Made in two widths.

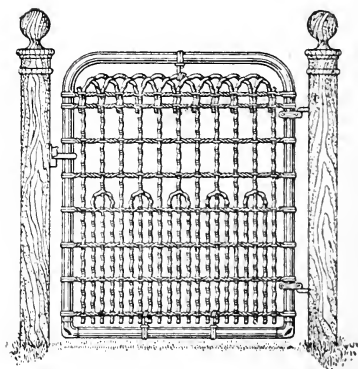
Price per lineal foot—18", 5c; 24", 6c.



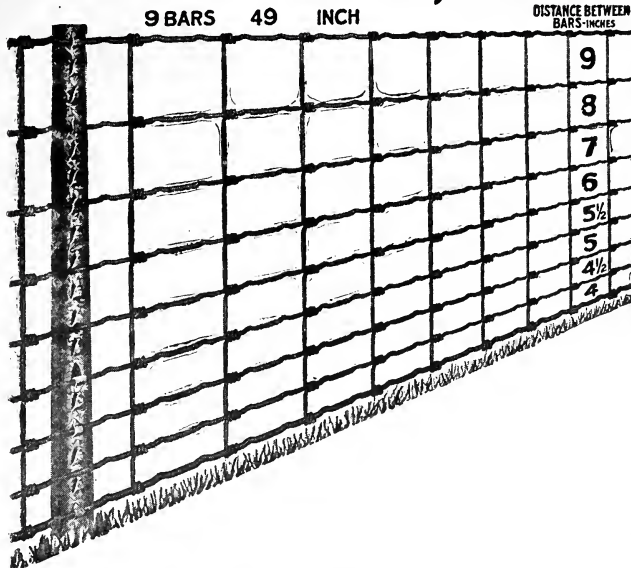
Universal Walk Gate

Heavy, high-carbon, steel tubing frame, $1\frac{1}{8}$ " in diameter. Won't bend nor break. Close mesh fabric; fittings for wood posts. Regular width, 36", 42" and 48".

Price for 3-ft. opening, \$2.00.



9 BARS 49 INCH



The Loit Fence Stretcher is the only tool necessary for putting up the American Field and Hog Fencing. Every farmer should own this Stretcher. It costs only \$5.

This fencing comes in 13 to 21 bars, in 6 inch stays, 24 to 58 inches high, 25c to 50c per rod.

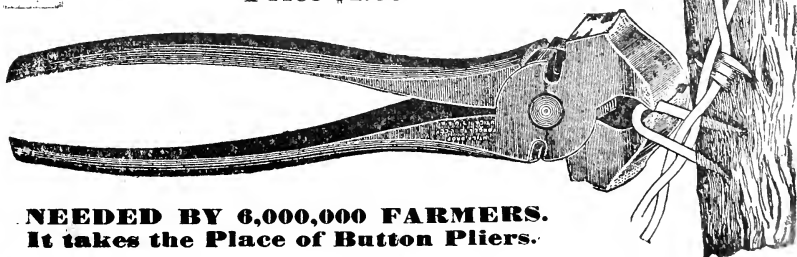
RETAIL PRICE LIST

FENCING		Per Rod
949	Style D—12-inch.....	\$.40
845	Style D—12-inch.....	.35
949	Style A—6-inch.....	.35
845	Style A—6-inch.....	.30
949	Style A—12-inch.....	.28
845	Style A—12-inch.....	.25
726	Style A—6-inch.....	.25
832	Style A—6-inch.....	.30
2158	Style F—6-inch.....	.45
1558	Style E—6-inch.....	.45
1948	Style F—6-inch.....	.40
635	Style A—12-inch.....	.22

STEEL FENCE POSTS

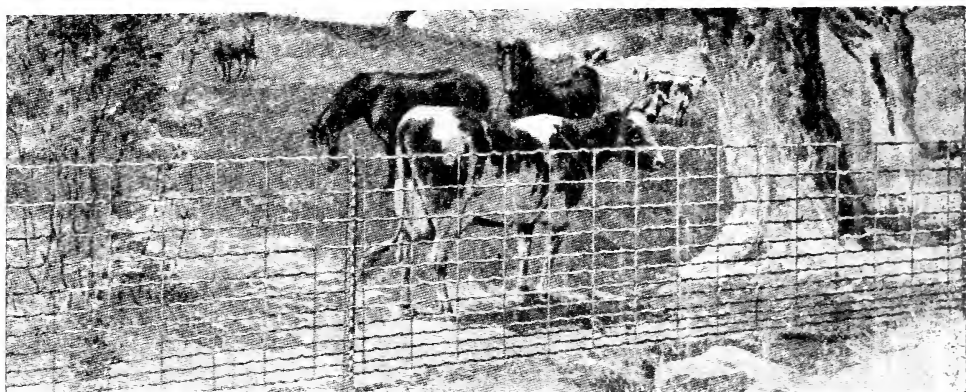
RETAIL PRICE LIST	
LINE POSTS, 6½ feet.....	\$.30
LINE POSTS, 7 feet.....	.35
LINE POSTS, 8 feet.....	.40
LINE POSTS, 9 feet.....	.45
CORNER POSTS, 8 feet.....	3.25
END POSTS, 8 feet.....	2.25
14-ft. Gate.....	8.00
3-ft. Single Walk Gate.....	3.00
4-ft. Single Walk Gate.....	4.00

7--SEVEN TOOLS IN ONE--7

Price \$1.00

Saves time and wages; saves cutting hand; saves your temper, and it saves chasing cattle. You

NEEDED BY 6,000,000 FARMERS.
It takes the Place of Button Pliers.



The above illustration indicates design 1258 of American Steel Fencing, which is eminently satisfactory for general farm purposes. The close spacing at the bottom will turn Hogs, also hold Sheep, Cattle and Horses.

We carry a full line of everything in the way of STEEL FENCING for Horses, Stock, Sheep, Hogs and Poultry. Price very reasonable.

FENCING, POSTS AND GATES

PRICE LIST

FENCING	Per Rod
949—Style D—12-inch.....	\$.40
845—Style D—12-inch.....	.35
949—Style A— 6-inch.....	.35
845—Style A— 6-inch.....	.30
949—Style A—12-inch.....	.28
845—Style A—12-inch.....	.25
726—Style A— 6-inch.....	.25
832—Style A— 6-inch.....	.30
2158—Style F— 6-inch.....	.45
1558—Style E— 6-inch.....	.45
1948—Style F— 6-inch.....	.40
635—Style A—12-inch.....	.22

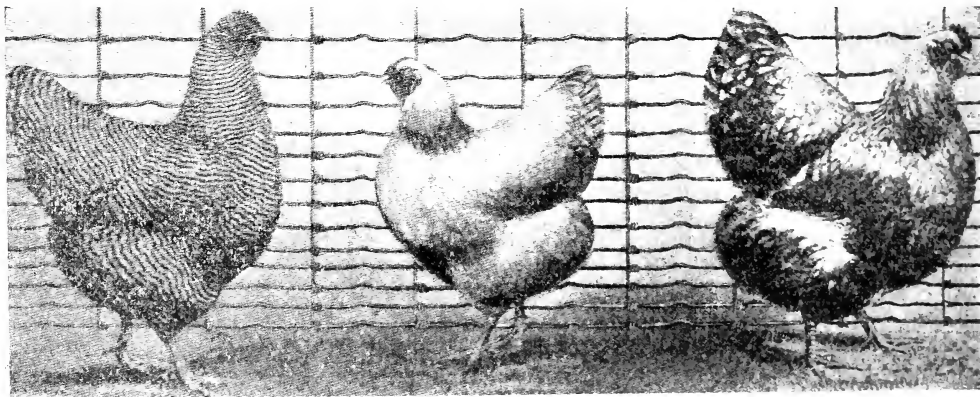
STEEL FENCE POSTS

RETAIL PRICE LIST

LINE POSTS, 6½ ft.....	\$.30
LINE POSTS, 7 ft.....	.35
LINE POSTS, 8 ft.....	.40
LINE POSTS, 9 ft.....	.45
COR. ER POSTS, 8 ft.....	3.25
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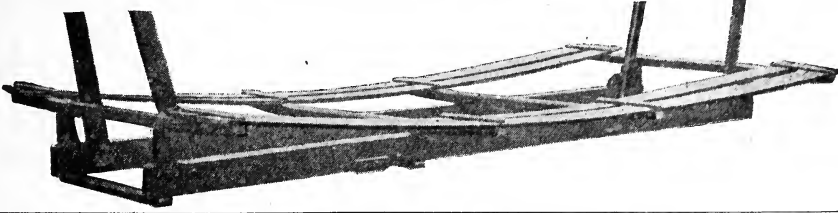
There's no better fencing made for hogs, cattle, poultry or rabbits. It makes an ideal garden fencing. It's strong, thoroughly practical and more durable than netting. The light specifications are strong enough to turn stock.

This fencing comes in 8 to 15 bars, either in 6 or 12 inch stays, 20 to 50 inches high, 25c. to 45c. per rod.

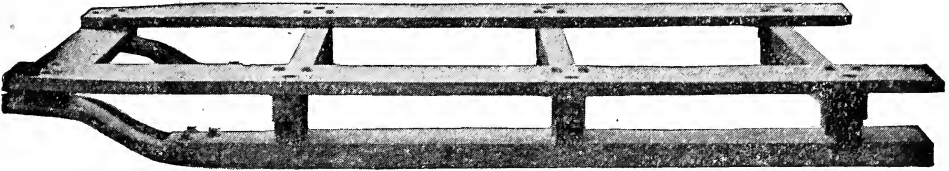


MERIDIAN HAY RACK.

Manufactured of selected lumber and well bolted. Price, 16-foot, \$13.00 14-foot, \$12.00.



OUR IMPROVED SLIP.

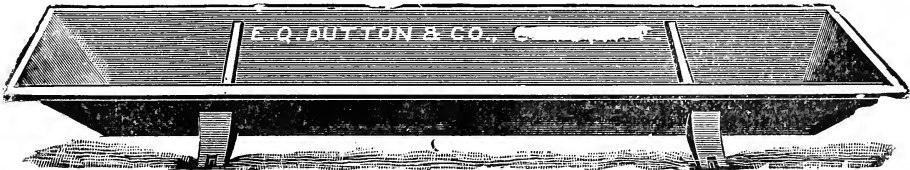


The above cut represents our Improved Slip, which any farmer can make by using our castings, which are shown in the front part of the cut. These castings are all finished and ready for the 3x6 inch maple runners. Since it is impossible to get Slip Runners sawed with the right sweep, any farmer will appreciate the benefit of our castings at a glance.

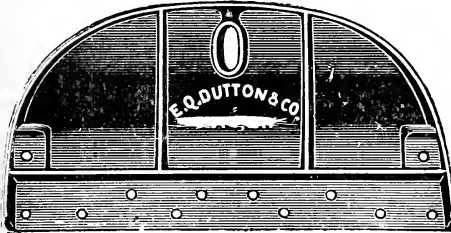
All complete like above cut, \$8.50.

Set of Shoes for above, \$2.75.

IRON HOG TROUGHS.



Made in four sizes 3 4 5 and 6 feet, 8 inches deep, 12 inches wide. Price 50 cents per foot.



IRON STONE BOAT HEAD.

A Simple, Complete and Inexpensive device whereby a Stone Boat can be made in a few minutes by using straight plank. One head will last for years.

Price \$3.00 Each

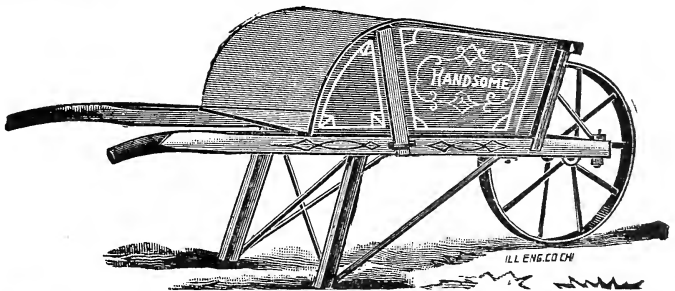
GARDEN

BARROWS.

\$3.00

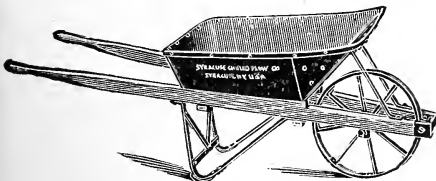
to

\$5.00.



STEEL TRAY BARROW

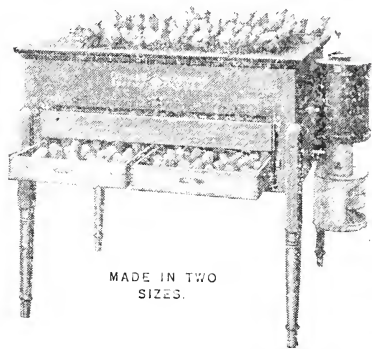
The framework of this barrow is bolted together and is fitted with a steel tray and patent wood wheel with iron hub, specially adapted for stable work. **Deep Steel Tray, No. 1. \$4.50.** We also offer **The Common Wood or Paddy Barrow**, with iron or wood wheels, \$1.75 and \$2.00



GENUINE CYPHERS COMPANY INCUBATORS PATENTED

Made in Three Styles—Eight Different Sizes

For the season of 1915 we offer our customers the Cyphers Incubator Company's complete line of Incubators. These three styles of high class, guaranteed hatching machines, running through eight different sizes, represent all that is efficient, convenient and reliable in incubator construction. In buying a Cyphers Company Incubator you take no chance.



390-400 Egg Standard Cyphers Incubator. Price Complete, \$38.00.

Incubator is guaranteed by the manufacturers to do first-class work in the hands of every purchaser who will give it a fair trial. Are built in four popular sizes and at prices as follows: 70 eggs, price complete \$15.00; 140 eggs, price complete \$22.00; 244 eggs, price complete \$32.00; 390-400 eggs, price complete \$38.00.

Standard Cyphers Incubators

These are machines that for fifteen years and more have been recognized as the "Standard Hatchers of the World." Tens upon tens of thousands of them have been sold and are in successful use in every civilized country on the globe. They are used by more Government Experiment Stations, on more large, practical poultry plants, on more successful duck and egg farms, and by a larger number of foremost poultry breeders than all other makes combined. They are the last word to date in incubator building, not a penny being spared anywhere in their construction to make sure of their doing satisfactory work in all climes, under widely different conditions, in the hands of all sorts of people. They are built to hatch and to last. With ordinary care they should last an ordinary lifetime. Every Standard Cyphers

Columbia Hot-Air Incubators

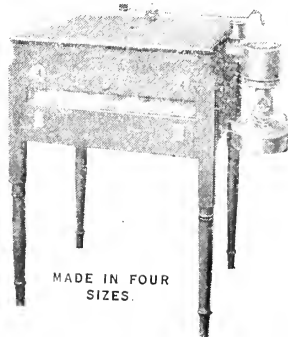
Are built to meet the wide-spread demand for large-capacity, lamp-heated machines that can be sold at surprisingly low prices and yet be guaranteed to do high-class work. Have wooden cases, attractively finished in dark green, with brass trimmings and double walls. Seamless-bottom lamp bowls, best quality brass burners, zinc and steel Standard Cyphers toggle-joint thermostat and same regulating equipment as used on highest priced machines. Fume-proof, forced draft heater, asbestos covered and metal banded. Automatic in ventilation and embodies diffusive principle. Roomy chick nursery under egg trays. Are made in two sizes: 130-140 eggs, price complete, \$15.00; 240-250 eggs, price complete \$19.00. Fully guaranteed.



240-250 Egg Columbia Hot-Air Incubator. Price Complete, \$19.00.

Superior Hot-Water Incubators

These machines are exactly what the name says. They are heated by hot water, instead of with hot air, and are "superior" in every detail. The water boiler and tank (tubular) are of heavy-weight copper. Lamp has seamless bowl; burner is best on market. Incubator case is of wood, attractively finished in golden brown, with brass trimmings (hinges, buttons, etc.) and has double walls, with air space insulation. Are equipped with Standard Cyphers zinc and steel toggle-joint thermostat and knife-edge regulator. Have forced water circulation and are automatic in ventilation. Roomy chick nurseries. Are built in two sizes: 60-65 eggs, price complete \$10.00; 120-130 eggs (see illustration), price complete \$14.00. Fully guaranteed.



120-130 Egg Superior Hot-Water Incubator. Price Complete, \$14.00.

Write for Large Complete Catalogue of Cyphers Incubators and Brooders.

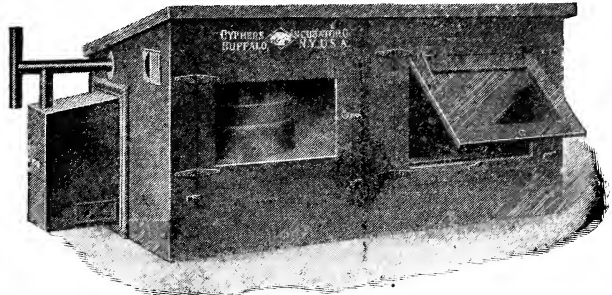
STANDARD CYPHERS COMBINATION BROODERS AND COLONY ROOSTING COOPS.

FOR 1915

Cyphers Unequalled Apartment Brooders and combination roosting coops have the same important advantages over all other makes that are possessed by Cyphers Company's 1915 incubators, in that they are fire-proofed and insurable, having the first fire insurance inspection label ever granted on a brooder.

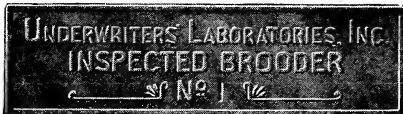
Cyphers 1915 Brooders, every size and style, are self-regulating, self-ventilating and varmint proof. The outdoor styles are useable also as colony coops for the growing chicks. They are easily and quickly converted into colony roosting coops by simply taking out the hover, which is made removable for that purpose.

FIRE-PROOFED, INSURABLE, SELF-REGULATING.



STYLE B OUTDOOR BROODER.

(Three apartments. Safest and most popular "Foster Mother" ever designed.)



DEMAND THIS LABEL YOUR SAFETY

Form of Brass Label to be found (in serial number) on every Cyphers Brooder. All sizes.

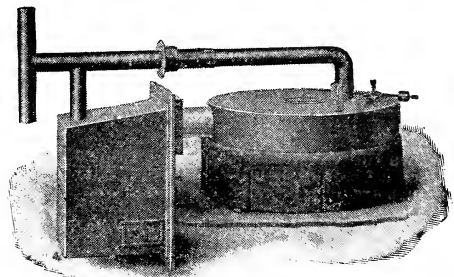
It has often been said of Standard Cyphers Incubators that

THEY MOTHER THE CHICKS BETTER THAN A HEN.

An Important Reason for this is found in the great practical advantage possessed by the entire line of Cyphers Brooders for 1915 in their self-regulating feature. For years the self-regulator was attached only to the highest priced Cyphers Brooder (Style C), but it was so well received that now it is attached to all Cyphers Company brooders. It automatically regulates the heat in the brooder underneath the hover at all times, whereas in brooders without a regulator the heat has to be governed by a continuous watching of the lamp and turning the wick up or down whenever more or less heat is required.

In addition to this unequalled line of brooders, we offer separately the Cyphers Company's world's challenge Adaptable Hover. This machinery-made, all metal, guaranteed fire proof heating and brooding device is suitable to be used anywhere that heat is required for brooding chicks or ducklings. It can be used in a roosting coop, colony house, shed, hen house, barn or other building with or without any additional enclosure for the chicks, or in a large goods case or organ or piano box.

Is pronounced by thousands of users to be the best device thus far invented for heating home-made brooders. Recommended especially for use in long brooding houses, one hover for each pen. Adaptable hover is complete in itself, bears insurance label as a separate device, and is safe to use anywhere. Weight, boxed for shipment, only 40 pounds.



**ALL METAL ADAPTABLE
HOVER.**

(Self-Regulating and Bears Insurance Label as Separate Device.)

Sizes and Prices of Cyphers Adaptable Hover and Brooders.

Free on Board Cars, Syracuse, N. Y.

Adaptable Hover, capacity 75 chicks,	\$ 8.50
Style A, Two Apartment Outdoor brooder, capacity 75 chicks,	13.50
Style B, Three Apartment Outdoor Brooder, capacity 100 chicks,	17.50
Style C, Three Apartment Outdoor Brooder, capacity 100 chicks,	19.00
Style D, Two Apartment Indoor Brooder, capacity 75 chicks,	13.00

CYCLE HATCHERS, BROODER--HATCHERS AND



PHILO SYSTEM GALVANIZED IRON FIRELESS BROODERS



Prices of Brooder Hatchers.

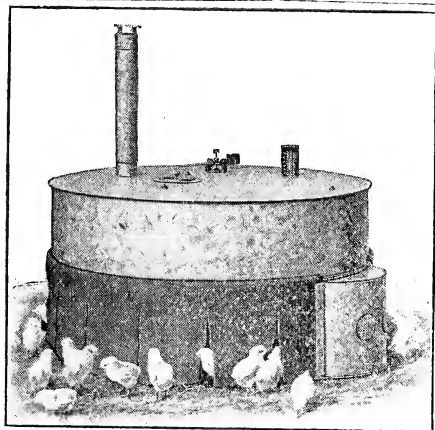
1 Brooder Hatcher, with thermometer,	\$ 8 00
2 Brooder Hatchers, " "	15 75
4 Brooder Hatchers, " "	29 25

Prices of Cycle Hatchers.

1 Cycle Hatcher, with thermometer,	\$ 6 50
2 Cycle Hatchers, " "	12 25
4 Cycle Hatchers, " "	23 25

Prices of Galvanized Iron Philo Lampless Brooders.

1 Galvanized Iron Brooder, large size,	\$ 2 75
2 " " " " " "	5 15
4 " " " " " "	10 00
1 " " " " " " medium size,	2 25
2 " " " " " " " "	4 15
4 " " " " " " " "	8 00
1 " " " " " " small size,	1 75
2 " " " " " " " "	3 15
4 " " " " " " " "	6 00
1 Set three Galvanized Iron Brooders, one of each size,	5 50



CYPHERS PORTABLE HOVER

Self Regulating. Indoor Use. \$8.50

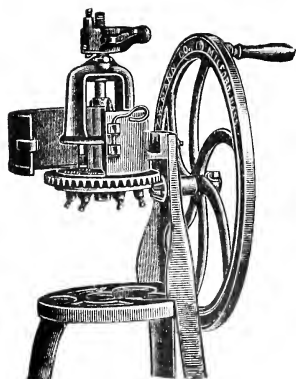
The **self-regulating and self-ventilating Portable Hover**, illustrated herewith, was invented by Cyphers Incubator Company in 1910, and has been well tested during three seasons of practical use on the Cyphers Company Poultry Farm. It is the only Self-Ventilating portable brooding hover thus far invented and **we guaranteed it to be the best device on the market.**

As its name indicates, the Cyphers Portable Hover can be picked up **at any time**—hover, lamp-box, lamp, regulating device, **all complete**—and moved to a new spot or any place the operator may desire and the device will **continue in operation** right along. The lamp need not be removed at this time nor the wick so much as turned down. Is very convenient **for cleaning** and for moving the chicks from one location to another.

This Hover has a rated capacity of **seventy-five** newly hatched chicks, or of fifty chicks that are

i Shows the Cyphers Company Portable Hover in Use on Floor of Poultry House. Chicks at all times are on a level with surrounding floor.

ten days to six weeks old. It will Hover comfortably one hundred **newly hatched chicks.**



MANN'S CELEBRATED BONE CUTTERS

We offer the best Bone Mill on the market. Fully warranted against breakage for two years. The only machine that will cut green bone fine enough for Bantams and little chickens

Price List of Mann's Green Bone Cutters

No. 5 C	with Crank Handle	. . . . .	\$ 6.00
No. 5 B	" Balance Wheel	. . . . .	8.00
No. 5 B M	" " and iron stand	. . . . .	10.50
No. 7	" " " "	. . . . .	12.00
No. 7 1-2	Hand and Power	. . . . .	16.00
No. 9	with Power	. . . . .	18.40
No. 11	Power Machine	. . . . .	26.00

Pratts

ANIMAL AND POULTRY REGULATORS AND REMEDIES

Satisfaction Guaranteed or Money Refunded

Pratts Poultry Regulator



This is the original Poultry Regulator of America, in use by the most successful poultry raisers everywhere.

It is a guaranteed egg producer, and when regularly used, hens lay throughout the year.

It is a perfect digestive and tonic and will prevent chicken cholera, gapes, roup, rheumatism, expel worms, prevent leg weakness, egg eating. It also greatly improves turkeys, geese, ducks, pigeons and guineas—insuring quick, healthy growth.

100-lb. bags, \$9.00; 25-lb. pails at \$2.50; 50c. pkgs., weight 4 lbs.; \$1.00 pkgs., weight 9 lbs.

Pratts Baby Chick Food



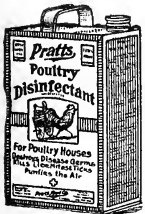
This is one of the greatest Money Savers and greatest Chick Savers ever placed on the market. Every man,

woman or child who raises little chicks, turkeys, ducks and geese should try at least one package of Pratts Baby Chick Food. It is a scientific food ration to be fed for the first three weeks. If you want real success with your

hatches, if you want to save all the baby chicks, if you want them to grow fast—get Pratts Baby Chick Food on our recommendation for your first trial, after that you will never be without it.

Put up in 1-lb., 3-lb., 6½-lb. pkgs., also 14-lb., 25-lb., 50-lb. and 100-lb. bags.

Pratts Poultry Disinfectant and Lice Killer

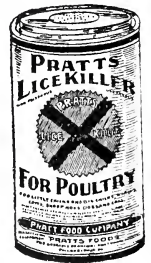


If poultry keepers would regularly spray the chicken houses, roosts, dropping boards and utensils with Pratts Poultry Disinfectant, most all their troubles would vanish. This great Disinfectant is a real wonder worker in the poultry yard. Put up in 1-quart 35c. and 1-gallon cans, \$1.00.

Pratts Lice Killer

(POWDERED FORM)

It quickly and thoroughly kills all lice on little chicks, big chicks, setting hens, and incubator chicks. It rids horses, cattle, hogs, dogs and cats of lice, and destroys ticks on sheep. It destroys insects and bugs on vines, plants and flowers. A valuable deodorizer and disinfectant, for all poultry houses, barns, stables, and dwellings. Drives out moths from closets, furniture, carpets and clothing. 25c. and 50c.



Pratts Roup Remedy

PILLS OR POWDER



Is a scientific preparation GUARANTEED to prevent and cure roup, colds, canker, catarrh and diphtheria.

In severe cases individual treatment with the PILLS is the only sure method. For mild cases and as a preventive, crush the pills or use the powdered form, and mix in the drinking water. Sold in 25c., 50c. and \$1.00 boxes.

Pratts White Diarrhoea

Remedy

This remedy will positively save many dollars' worth of little chicks to poultry raisers. It has taken us nearly three years to find a remedy for White Diarrhoea and we are so sure that we have it in this article that we authorize our dealers throughout the world to refund the purchase price in case it fails. Extra large box, 50c.; small size, 25c.



A Guaranteed Remedy for Practically Every Poultry Ailment

POULTRY SUPPLIES

CYPHERS INCUBATOR, No. 0, 70-egg.	\$15.00
" " " 1, 144-egg.	22.00
" " " 2, 244-egg.	32.00
" " " 3, 390-egg.	38.00

CYPHERS BROODERS

Cyphers Adaptable Hover, 75 chicks	\$8.50
Style A, Outdoor Brooder 75 "	13.50
" B, " " 100 "	17.50
" C, " " 100 "	19.00
" D, Indoor " 75 "	13.00
Metal Parts for Style A Brooder	6.00
" " Colony without Regulator.	6.00
Stoves (Cyphers Safety),	1.75
" (Cyphers Improved),	1.75
" (1907 Pattern),	1.50
Per lb.	Per 100

BEEF SCRAPS,	\$ 1-2c.	3.00
CRUSHED SHELL,	1c.	.60
BONE MEAL, Raw,	3c.	2.75
ALFALFA, Mealed,	3c.	2.00
BOWKER'S ANIMAL MEAL, per 100 lbs		2.50
" " " 50 "		1.50
" " " 25 "		.75
" " " 10 "		.35
Per doz.	Per 100	

BANDS, Double Clinch	15c.	.65
" Adjustable,	15c.	.65
" Pigeon Leg,	15c.	.65

BONE CUTTERS

Mann's, No. 5 C., with Crank Handle,	6.00
" No. 5 B., with Balance Wheel,	8.00
" No. 5 B. M., with Iron Stand and Balance Wheel,	10.50
Mann's, No. 7, Balance Wheel,	12.00
" No. 7 1-2, Semi-Power,	16.00
" No. 9, with Balance Wheel and Iron Stand,	18.50
Mann's, No. 11, Power Machine,	26.00
" No. 12, " "	30.00

OLOVER CUTTER, without stand,	8.50
" " with stand,	18.50

BOXES FOR GRIT AND SHELL, each,	.50
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BONE AND SHELL MILL (see Mill)	
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BOOKS—POULTRY

999 Questions and Answers, latest and best book on Poultry Raising,	1.00
Reliable Poultry Remedies. How to Prevent and Cure Diseases (84 pages),	25
Ducks and Geese. How to Succeed with Water Fowls (68 pages),	.50
Turkeys. How to raise Turkeys Profitably (84 pages),	.50
500 Questions and Answers in Poultry Raising,	.50

OAPONIZING INSTRUMENTS (postpaid)	2.50, 3.00, 4.00
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OEMENT (Tar Paint for Roofs), per gallon, \$0.50; three gallons,	1.25
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OOP, New Model Brood,	3.50
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CHARCOAL, Nodi, 3 sizes, fine, medium, coarse, 2 lb. carton 10c, 50 lb. sack,	1.00
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CORN SHELLERS (Iron King), each,	1.00
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CANDLE, Sulphur Fumigating, each,	15
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COOKERS, Food, 30 gal. size, each,	11.00
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CUTTERS

(See opposite page)

Banner Root, No. 7,	5.00
Fancier's Root,	1.00
Root, Pulley and Crank, No. 26,	12.00
" (Crank only),	9.00

EGG CARTONS (Paper), 12-egg, per doz., 10c. 100	.75
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HUMPTY DUMPTY EGG-CASES—

6 doz size, 30c; 12 doz. size	.35
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EGG, Porcelain Nest, per doz.,	.25
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EGGS, Medicated, per doz.,	.50
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FOOD

Cyphers Chick,	per lb., 3c.; per 100 "	2.75
" " "	" 50 "	1.50
" Forcing,	" 3c. " 100 "	2.50
" Scratching,	" 2½c " 50 "	1.25
" " "	" 2½c " 100 "	2.25
" Developing,	" 3c. " 50 "	1.50
" " "	" 100 "	2.50
" Laying Mash	" 3c. " 50 "	1.50
" " "	" 100 "	2.75

DRY MASH or CHICKEN CHOWDER—

3c lb; per 100	2.50
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FOOD HOPPERS, DRY. Boston and Favorite 100. Cyphers and Sexton	.75
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FOUNTAINS

Wall, 1 gallon, each,	.50
" 2 " "	.75
Drinking, Galv. Iron, small, each,	.20
" " " medium, each,	.25
" " " large, each,	.35
" " " special duck,	.50

FOUNTAIN (Warm Water Drinking),	1.50
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FOOD OR WATER CUPS (see Cups.)

FENCING, HEXAGON, 2 inch mesh.

2-inch mesh.	12-inch.	2-inch mesh	48 inch
2 " "	18 " "	2 " "	60 "
2 " "	24 " "	2 " "	72 "
2 " "	36 " "		

In full rolls 1-2c. per square foot.

Less than full rolls 3-4c. per square foot.

Each roll contains 150 lineal feet.

FENCING, HEXAGON, 1 inch Mesh

1 inch mesh	12 inch	1 inch mesh	48 inch
1 " "	18 " "	1 " "	60 "
1 " "	24 " "	1 " "	72 "
1 " "	36 " "		

In full rolls of 150 feet \$1.10 per 100 sq. ft.

Less than full rolls, 1 1-2 cent per sq. ft.

AMERICAN POULTRY FENCE

A fence, not a netting

2158	per rod 45c.
1558	per rod 40c.

POULTRY SUPPLIES---Continued.

GRIT, Crystal Granite, in three sizes, Per lb., 2c.; per 100, .75	
GRIT, Foust Health, per lb., 3c.; " 100, 2.00	
GUN, Jumbo Powder, each,25	
GRAINS, Corn Cracked, per bushel, .	
" Canada Peas, " " . Market	
" Wheat, Red, " " .	
" Buckwheat, " " . Prices	
" Millet, " " .	
HENETA, per lb., 2c.; per 100 2.00	
HOUSE, Shed Roof, each, 20.00	
" Suburban Portable, each, 25.00	
" Hare-Curtis Poultry, each, 20.00	
" Apex Poultry (no Runway), each 10.00	
(with Runway), ea. 15.00	
" Cypher's Colony, each, 8.00	
HOPPERS, Dry Food, each, 75c., 1.00	
KNIVES, Poultry Killing, each,50	
LICE REMEDIES (see Powders.)	
MARKERS, Philadelphia Poultry, each, . .25	
MILL, Green Bone (see Bone Cutters.)	
" Dry Bone and Shell (without stand) each, 5.00	
MILL, Dry Bone and Shell (with Stand), each, 7.00	
MILL, Tennessee Grinding, each, 2.00	
" (Extra Grinders for same), each, . .25	
" Oriole Farm and Grist, No. 2 1-2, each, 25.00	
MILL, Balance Wheel Grist, each, 2.25	
MEDICAL AND SURGICAL CASE, Cy- pher's Poultry, each, 3.00	
MEDICAL CASE, Separate, each, 2.00	
SURGICAL " " " 1.50	
MOISTURE DEVICE, Automatic, each, . . 1.50	
NEST WIRE, each,15	
LEE'S LICE KILLER, 1 qt 35, 2 qts 60, 4 qt \$1.00	
NESTS, Earthen Pigeon, each, 15c.; doz., 1.75	
PAINT, Lice, Cyphers (Liquid), 1 quart, .35	
" " " 2 " "60	
" " " 1 gallon, 1.00	
PHILADELPHIA POULTRY MARKER, .25	
POULTRY BOOKS (see Books.)	
POULTRY HOUSES AND FIXTURES	
Plans for Practical Building and Equip- ment (36 pages), (H),35	
200 Eggs a Year per Hen, and How to Get Them,50	
Pigeons, all About Them. (Maj. Gilbert), 1.00	
Poultry Craft,1.50	
Broilers and Roasters,50	
Farm and Poultry Doctor,50	
A Living from Poultry,25	
Cyphers Series, Nos. 1 to 6,50	
" " No. 7, 1.00	
" " No. 8,25	
POWDER, Lambert's Lice, 5 oz.,10	
" " " 15 " "25	
" " " 48 " "50	
" " " 100 " "1.00	
REMEDIES	
Cyphers Poultry (Case complete), each, 2.00	
(Single Vials), each,25	
ROUP CURE, Ebeling's Guaranteed, . . .50	
" " Conkey's, 25c. 50c. and 1.00	
" " Rust's, 25c. and .50	
ROOT CUTTERS (see Cutters.)	

ROOFING, Flintkote, 1-2 ply, per square, .	1.75
" " 1 " " "	2.25
" " 2 " " "	3.25
" " 3 " " "	4.00

Each roll contains one or two squares.

ROOFING, ASSOCIATION BRAND

1-ply per sq.	1.40
2-ply per sq.	1.75
3-ply per sq.	2.25

ROOFING, Tar, 2-ply, 100 square feet, .	.85
" " 3 " 100 " "	1.00

" CAPS, Tin, per lb., . . . . .	.07
" NAILS, per lb., . . . . .	.05

SHELTERS, Chick, 6 feet,	4.50
" " 12 " " "	7.00

SHELLS, Oyster, per 100, . . . . .	.60
Special price for larger lots.	

**SULPHUR FUMIGATING CANDLES (see Can-
dies.)**

SPRAY PUMPS, for Spraying Whitewash, each,	\$3.00 and 4.50
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SPRAYERS, Compressed Air, Galv. Iron, each,	2.50 to 5.00
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SPRAYERS,	25c. to 1.00
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STAPLES, Fence, per lb.,05
" Poultry Fence, per lb.,10

SALT CAT, per brick,10
" " per dozen,	1.00

Add 20c. extra for postage.

THERMOMETERS, Incubator, each,60
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THERMOMETERS, Brooder, .35 and .50	
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TESTERS, X-Ray Egg, each,25
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TRAYS, Pedigree Egg, No. 2, per pair, .	4.00
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" " " No. 3, " "	4.75
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TOBACCO STEMS, 10 lb.,25
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" " 50 " " "	1.00
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" " 100 " " "	2.00
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TRAP NESTS, each,	1.60
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WIRE POULTRY NETTING (see Fencing.)**POULTRY FOOD**

Pratt's, per pkg.,	25c. and .50
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Lee's Egg Maker, per pkg.,	25c. and 2.00
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BIRD SEED AND SUPPLIES.

CANARY,	}	Market Prices
HEMP,		
RAPE,		
MILLET,		
MAW,		

UNHULED RICE,		
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SUNFLOWER SEED, 10c. " " 3 " .25		
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SHEPARD SONG RESTORER, per bottle, .25		
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MARSHALL'S " " " .25		
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MOCKING BIRD, per bottle,30	
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BIRD GRAVEL, 10c. pk., 3 for .25		
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CUTTLE BONE, per oz.,05	
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PEPPER SEED, per oz.,10	
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LETTUCE SEED, per oz.,05	
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PIGEON AND DOVE SUPPLIES.

CANADA PEAS, per bu.,	Market	
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CHOICE WHEAT, per bu.,	Market	
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YELLOW CORN, small kernels, per bu.,	Prices	
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KAFFIR CORN, per bu.,		
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MILLET, per bu.,		
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HEMP, per lb.,		
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FOUST'S HEALTH GRIT, per lb., 3c.; per 100,	2.00	
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DOG BISCUIT, 1 lb., 10c.; 3 lbs., 25c		
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DOG AND PUPPY BISCUIT, SPRATT'S,		
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OLD GRIST MILL MILK-BONE in bulk		
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per lb 10c., per package25	
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46TH
ANNUAL
CATALOGUE

SEEDS
BULBS
FARM SUPPLIES



F. H. EBELING
SEEDSMAN

RETAIL STORE
217 WARREN ST.

SYRACUSE, N. Y.

WAREHOUSE
538-540 CANAL ST.